



# CODE AND GUIDE FOR SEWAGE 2006





**CODE AND GUIDE FOR  
SEWAGE SYSTEMS 2006**

**containing the Building Code Act, 1992 and  
O. Reg. 350/06**

**COMMENCEMENT**

Ontario Regulation 350/06 comes into force on the 31st day of December, 2006.

Amending Ontario Regulation 423/06 comes into force on the 31st day of December, 2006.

**r<sub>1</sub>** Amending Ontario Regulation 137/07 comes into force on the 2nd day of April, 2007.

**m<sub>1</sub>** Ruling of the Minister of Municipal Affairs and Housing (Minister's Ruling) MR-07-S-02 takes effect on the 9th day of March, 2007.

**a<sub>1</sub>** Amendment made to Appendix A or B issued April 2nd, 2007.

**ERRATA**

**e<sub>1</sub>** Issued April 2nd, 2007.

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## **Preface**

### **Introduction**

The Building Code is a regulation made under the *Building Code Act, 1992*. The 2006 Building Code was enacted by Ontario Regulation 350/06 which came into force on December 31, 2006.

Based on the 2006 Building Code Compendium, this edition contains only provisions and explanatory material related to plumbing and is prepared for purposes of convenience. For the authoritative text of the Building Code regulation, see the official volumes.

The 2006 Building Code updates the previous edition of the Building Code, which dates from 1997. Many of the changes introduced into the 2006 Building Code increase the level of harmonization between Ontario's Code and those in other Canadian jurisdictions. As well, the 2006 Building Code is written in an objective-based format which is intended to promote innovation and flexibility in design and construction.

### **Objective-Based Code Format**

The 2006 Building Code is Ontario's first to be published in an objective-based format. The objective-based format augments specific technical requirements by identifying the underlying objectives and sub-objectives of those requirements (see table below). Each technical requirement that is an acceptable solution in Division B is linked to one or more of the objectives, as well as functional statements, through the Attribution Tables in Supplementary Standard SA-1.

Some objectives were developed jointly by the NRC and Canadian provincial/territorial jurisdictions.

The objective-based format is intended to assist Building Code users to understand the "why" behind Code requirements, as well as the "what". This new format is more flexible and more responsive to innovation, as it should provide Code users with more information to evaluate construction equivalents and acceptable alternatives to the requirements of the Code.

The objective-based framework establishes a framework for evaluating "alternative solutions" against the performance achieved by the "acceptable solutions" set out in the Code.

Objective	Sub-Objective
Safety	Fire Safety
	Structural Safety
	Safety in Use
	Resistance to Unwanted Entry
Health	Indoor Conditions
	Sanitation
	Noise Protection
	Vibration and Deflection Limitation
	Hazardous Substances Containment
	Privacy*
	View to the Outdoors*
Accessibility	Barrier-free Path of Travel
	Barrier-free Facilities
Fire, Structural Water and Sewage Protection of Buildings	Fire Protection of the Building
	Structural Sufficiency of the Building
	Protection of Adjacent Buildings from Fire
	Protection of Adjacent Buildings from Structural Damage
	Water and Sewage Protection of Buildings and Facilities
Resource Conservation*	Water Conservation*
	Energy Conservation*
Environmental Integrity*	N/A
Conservation of Buildings*	N/A

\*Ontario-specific objectives are highlighted in grey.

## **Objectives**

Every technical requirement that is an acceptable solution in Division B is linked to at least one objective, which explains the objective which the requirement is intended to achieve.

## **Functional Statements**

Functional Statements describe what the design and construction of the building must do to achieve the objectives. At least one functional statement is linked to each technical requirement that is an acceptable solution in Division B.

## **Intent Statements**

Intent statements will be published to assist Code users. These statements will be an explanation of the purpose of each requirement and will be written in detailed and plain language. The statements are not part of the Building Code regulation and will be provided for explanatory purposes (similar to Appendix A). Due to the number of intent statements, this user document will likely be available in an electronic format (e.g. CD) and will not be included in the 2006 Building Code Compendium.

## **Structure of the Objective-Based Code**

The Building Code is divided into three Divisions, which are further subdivided into Parts.

### **Division A Compliance, Objectives and Functional Statements**

#### **Part 1 Compliance and General**

Part 1 contains organization and application; compliance; interpretation; defined terms, symbols and abbreviations; as well as the list of applicable law for the purposes of obtaining a permit under Sections 8 and 10 of the Act.

#### **Part 2 Objectives**

#### **Part 3 Functional Statements**

**Division B Acceptable Solutions****Part 1 General**

Part 1 contains the compliance and general requirements of the code, including organization, application, interpretation, terms and abbreviations, and referenced documents and organization.

**Part 3 Fire Protection, Occupant Safety and Accessibility**

This Part contains the requirements with respect to health and fire safety, which depend upon the use to which a building is put and its type of occupancy. Subsection 3.1.17. contains provisions for determining occupant load.

**Part 7 Plumbing**

Part 7 governs the design, construction and installation of plumbing systems within properties. Section 7.4 contains provisions for drainage pipe sizes and for determining hydraulic loads for fixtures.

**Part 8 Sewage Systems**

Part 8 governs the design, construction, operation and maintenance of various class of sewage systems located within properties. It addresses sewage systems up to 10,000 litres capacity serving one lot.

Systems larger than 10,000 litres/day and off-lot (communal) sewage systems are regulated under the Ontario Water Resources Act, with approvals issued by the Ministry of Environment. MOE also regulates waste approvals for the hauling of sewage and land application sites under Part V of the Environmental Protection Act.

**Part 10 Change of Use**

Part 10 governs the requirements with respect to a change in major occupancy without any proposed construction to the buildings.

**Part 11 Renovation**

Part 11 provides for flexibility in meeting life safety requirements when renovating existing buildings, with or without changes in major occupancies of the buildings or parts of the buildings.

This flexibility allows, subject to certain conditions, the use of alternate methods of compliance to requirements contained in Parts 3, 4, 6, 8 or 9, for all existing buildings or any major occupancies.

## **Division C Administrative Provisions**

### **Part 1 General**

Part 1 contains several administrative provisions relating to matters such as professional design requirements, permits and inspections, and building permit fees.

### **Part 2 Alternative Solutions, Disputes, Rulings and Interpretations**

Part 2 contains administrative provisions related to the Building Code Commission, the Building Materials Evaluation Commission, Minister's Rulings, Minister's Interpretations, and documentation of alternative solutions.

### **Part 3 Qualifications**

Part 3 contains qualification requirements for chief building officials, inspectors, registered code agencies, designers and on-site sewage installers.

### **Part 4 Transition, Revocation and Commencement**

Part 4 contains the transition rules from the outgoing Building Code to the 2006 Building Code. It also contains the revocation of the outgoing Building Code and the commencement date of the 2006 Building Code.

## **Appendix A Explanatory Information**

Appendix A contains additional non-regulatory explanatory information to assist Code users in understanding the intent of the requirements contained in Divisions A, B and C.

## **Appendix B Imperial Conversion**

Appendix B contains Imperial conversion factors for metric values used in the Code. It is not a regulatory section of the 2006 Building Code Compendium.

## **Supplementary Standards**

The Supplementary Standards supersede the former Supplementary Guidelines referenced by the 1997 Building Code.

Supplementary Standards with the SA prefix are referenced by Division A of the Building Code. They include the Attribution Tables which relate objectives and functional statements of Division A to acceptable solutions of Division B.

Supplementary Standards with the SB prefix are referenced by Division B of the Building Code. They include climatic and seismic data in Supplementary Standard SB-1.

Supplementary Standards with the SC prefix are referenced by Division C of the Building Code. They include administrative provisions (e.g., Code of Conduct for Registered Code Agencies).

## **Code Development**

Work on Ontario's 2006 Building Code began in 1998 through a joint Federal/Provincial/Territorial process coordinated by the Canadian Commission on Building and Fire Codes (CCBFC) and supported by the National Research Council (NRC). The objectives of this coordinated strategy were to achieve greater harmonization among the model National codes and provincial codes, and create a more uniform code development process.

New editions of the model National Building, Plumbing and Fire Codes (mNBC, mNPC and mNFC) were released in September 2005, although these Codes have no legal status unless adopted by a province, territory or municipality.

Ontario's 2006 Building Code is a regulation made under the *Building Code Act, 1992* and applies throughout Ontario and is based in large measure on the 2005 mNBC and mNPC. However, differences between the model National Codes and Ontario's Building Code occur. Ontario's 2006 Building Code has Ontario-specific requirements in areas such as energy efficiency, water conservation, renovation of existing buildings, and barrier-free access. Ontario has also moved to consolidate construction requirements from other legislation into the Building Code, including those related to on-site sewage systems, pools, spas, food premises, private sewers and private water supplies.





## Additional Information

### Metric Conversion

For the most part, the official units of measurement in the Code are based on the metric system. However, imperial equivalent values which appear in brackets in Part 9 of Division B are included for convenience only.

Part 7 of Division B has pipe sizes expressed in inches. These are nominal dimensions by which pipe is known in the trade and the exact dimension may vary with different pipe materials.

### Numbering System

A decimal numbering system has been used to identify particular requirements. The first number indicates the Part of the Code, the second, the Section in the Part, the third, the Subsection and the fourth, the Article in the Subsection. An Article may be further broken down into Sentences (indicated by numbers in brackets), and the Sentence further divided into Clauses and Subclauses. These are illustrated as follows:

3	Part
3.6.	Section
3.6.2.	Subsection
3.6.2.3.	Article
3.6.2.3.(1)	Sentence
3.6.2.3.(1)(f)	Clause
3.6.2.3.(1)(f)(i)	Subclause
3.6.2.3.(1)(f)(i)(A)	Sub-subclause
12.3.4.5.(6).1.	Paragraph

## Guideline for Requesting Changes to the Building Code

### Request a Code Change

The Building Code improves with each edition thanks to the contributions of building officials, designers, builders, contractors, product manufacturers, researchers, building owners and the public. Typical changes accommodate new materials, systems and building design, clarify requirements, or update references to standards.

The Building Code is a regulation made under the *Building Code Act, 1992*. Given the joint Federal/Provincial/Territorial Code development process, changes developed by CCBFC for the mNBC and the mNPC are considered for inclusion in Ontario's Building Code. Suggestions for changes to the Building Code made by members of the public may also be considered. Potential changes to the Building Code are generally developed following a public consultation process and review by a Building Code technical committee.

Suggestions to improve the Building Code may be submitted to the Building and Development Branch of the Ministry of Municipal Affairs and Housing. The following points should be considered in developing a request for a Building Code change:

### **Clarity**

Code change requests should clearly identify the specific change being proposed, current Code provisions that would be affected by the change, and the rationale for proposing the change. Proposed language for new Code provisions is helpful.

### **Supporting Documentation**

Code change requests should be accompanied by sufficient documentation to support the need for the change. Documentation may include research, testing results, statistics, case studies, etc.

### **Cost/Benefit Analysis**

Code change requests should include information on implementation costs and the benefits likely to be achieved.

### **Assessment of Conformance**

Code change requests may not be viable if there are no practical means of assessing conformance with the proposed new requirement. Requests should consider whether there are existing tools or models that can be used to assess the conformance of designs or construction with the requirements of the proposed Code change.

Requests also need to consider whether the implementation of Code changes would have implications for enforcement bodies.

### **Timing**

Although requests for changes to the 2006 Building Code can be made at any time, it is likely that most changes will be considered for inclusion in the next edition the Building Code. However, "interim" Code changes to the 2006 Code are possible.

### **Objectives**

The objectives of the Building Code's requirements ("acceptable solutions") are set out in Division A. Code change requests should link proposed changes to one of the Code's stated objectives. The addition of a provision that cannot be linked to one of the currently stated objectives would require the addition of new objectives.

### **Focus on Generic/Widespread Issues**

The Building Code's standards are of general application and it is therefore impractical for the Building Code to deal with specific products or with situations that arise only rarely.

However, innovative products that are not yet covered by standards or mentioned in the Codes are not necessarily excluded from use. Current administrative procedures to enable the use of innovative products are listed in Division C, and include Alternative Solutions, the Building Code Commission, the Building Materials Evaluation Commission and Minister's Rulings.

The attached form should accompany requested changes, although its use is not mandatory provided the criteria stated above are considered. Where the form does not provide sufficient space for the information you wish to include, you are encouraged to attach additional pages as necessary. Additional electronic copies of the Building Code change request form may be obtained from the Building Code website at:  
[www.ontario.ca/buildingcode](http://www.ontario.ca/buildingcode).





## 2006 BUILDING CODE CHANGE REQUEST FORM

## CONTACT INFORMATION:

Do you agree to permit sharing all information on this form with Building Code Review Committees and the Canadian Commission on Building and Fire Codes for the purposes of code development?

☐ YES☐ NO

I am submitting this on behalf of:

☐ Myself, or☐ Organization: \_\_\_\_\_

Your Title: \_\_\_\_\_

Your Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_

Province: \_\_\_\_\_

Postal Code: \_\_\_\_\_

Telephone: \_\_\_\_\_

Facsimile: \_\_\_\_\_

Email: \_\_\_\_\_

**Your function:**

(if submitting on behalf of yourself)

☐ Builder / Contractor☐ Building Official☐ Building Owner / Manager☐ Designer / Architect / Engineer☐ Home Owner / General Public☐ Supplier / Manufacturer☐ Other: \_\_\_\_\_

## CODE CHANGE REQUEST:

☐ To an existing code provision:

Code Reference of the Requested Change:

Division, Part, Section, Subsection, Article, Sentence, etc. eg: Div. B, 9.32.3.5 (1)

☐ Add a new code provision

Have you forwarded this change to the Canadian Commission on Building and Fire Codes as a proposed amendment to the model National Building or Plumbing Codes?

☐ YES☐ NO

Personal information provided on this form is collected under the authority of the Building Code Act, 1992 and will be used for the purpose of code development. Please direct any questions about the collection of information by mail to the following address:

Manager, Code Development, Legislation and Appeals  
Building and Development Branch, 777 Bay Street 2nd FL.,  
Toronto, Ontario M5G 2E5  
Telephone: (416) 585-6666  
or by Facsimile at: (416) 585-7531

<b>REQUESTED CHANGE/ADDITION:</b>  What wording do you propose for the change?	
<b>PROBLEM:</b>  Why should the existing provision be revised? If requesting an addition to the Code, what is missing?	
<b>JUSTIFICATION/EXPLANATION:</b>  How does the requested change address the problem?	
<b>OBJECTIVE(S):</b>  Which of the Code's objectives does the requested change address? See Part 2 of Division A of the Building Code for the list of objectives.	
<b>COST/BENEFIT IMPLICATIONS:</b>  Will the change entail any added costs? Will it provide benefits that are measurable?	
<b>ENFORCEMENT IMPLICATIONS:</b>  Can the requested change/addition be enforced by the infrastructure available to enforce this Code? Will its enforcement require an increase in resources?	
<b>OTHER COMMENTS:</b>  For example, identify other Code requirements affected by the requested change, etc.	
<b>ATTACHED SUPPORTING MATERIAL:</b>	

Present only one change request per form. Duplicate the form as necessary. You may attach additional pages or use any other format to submit your request as long as all the information indicated above is included. Mail or fax to:

Director, Building and Development Branch  
 Ministry of Municipal Affairs and Housing  
 777 Bay Street 2<sup>nd</sup> Floor  
 Toronto, Ontario M5H 2E5  
 Fax: (416) 585-7531

**BUILDING CODE ACT, S.O. 1992, c.23**

as amended by:

S.O. 1997, c.24, s.224, except s.224(17), proclaimed in force June 17, 1998

S.O. 1997, c.30, Schedule B, s.1-20 proclaimed in force April 6, 1998

S.O. 1999, c.12, Schedule M, s.1-11 in force December 22, 1999

S.O. 2000, c.5, s.7 in force January 1, 2001

S.O. 2000, c.26, Schedule K, s.1 in force December 6, 2000

S.O. 2002, c.9, s.5, 6(1),(2), 16, 24, 25; 27, 31(1), 34, 40(1), 41(1), 43, 51(6),(9),(11)-(15), 53(3), 54, in force September 1, 2003

S.O. 2002, c.9, s.1-4, 6(3), 7-15, 17-19, 20(1),(2), 21-23, 26, 28-30, 31(2), 32, 33, 35-39, 40(2),(3), 41(2), 42, 44-50, 51(1),(2), (4),(5),(7),(8),(10), 52, 53(1),(2) in force July 1, 2005

S.O. 2002, c.17, Schedule C, s.1-6 in force July 1, 2005

S.O. 2002, c.17, Schedule F, Table in force January 1, 2003

S.O. 2005, c.33, s.1 in force December 15, 2005

S.O. 2006, c.19, Schedule O, ss.1, 2 in force June 22, 2006

S.O. 2006, c.32, Schedule C, s.3, in force January 1, 2007

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## Interpretation

### 1.- (1) Definitions. In this Act,

"building" means,

- (a) a structure occupying an area greater than ten square metres consisting of a wall, roof and floor or any of them or a structural system serving the function thereof including all plumbing, works, fixtures and service systems appurtenant thereto,
- (b) a structure occupying an area of ten square metres or less that contains plumbing, including the plumbing appurtenant thereto,
- (c) plumbing not located in a structure,
- (c.1) a sewage system; or
- (d) structures designated in the building code; ("bâtiment")

"building code" means regulations made under section 34; ("code du bâtiment")

"change certificate" means a certificate prescribed under the building code as a change certificate; ("certificat de modification");

"chief building official" means a chief building official appointed or constituted under section 3 or 4; ("chef du service du bâtiment")

"code of conduct" means a code of conduct described in section 7.1; ("code de conduite");

"construct" means to do anything in the erection, installation, extension or material alteration or repair of a building and includes the installation of a building unit fabricated or moved from elsewhere and "construction" has a corresponding meaning; ("construire", "construction", "travaux de construction")

"demolish" means to do anything in the removal of a building or any material part thereof and "demolition" has a corresponding meaning; ("démolir", "démolition", "travaux de démolition")

"director" means the person appointed as director under section 2; ("directeur")

"final certificate" means a certificate prescribed under the building code as a final certificate; ("certificat définitif");



"inspector" means an inspector appointed under section 3, 3.1, 4, 6.1 or 6.2; ("inspecteur")

"Minister" means the Minister of Municipal Affairs and Housing; ("ministre")

"municipality" means a local municipality; ("municipalité")

"officer" means a property standards officer who has been assigned the responsibility of administering and enforcing by-laws passed under section 15.1; ("agent")

"planning board" means a planning board established under section 9 or 10 of the *Planning Act*; ("conseil d'aménagement")

"plans review certificate" means a certificate prescribed under the building code as a plans review certificate; ("certificat d'examen des plans")

"principal authority" means,

- (a) the Crown,
- (b) the council of a municipality,
- (c) an upper-tier municipality that has entered into an agreement under subsection 3(5), 6.1(1) or 6.2(1),
- (d) a board of health that has been prescribed for the purposes of subsection 3.1(1) or has entered into an agreement under subsection 6.1(2) or (3) or 6.2(2),
- (e) a planning board that has been prescribed for the purposes of subsection 3.1(1), or
- (f) a conservation authority that has been prescribed for the purposes of subsection 3.1(1) or has entered into an agreement under subsection 6.2(2); ("autorité principale");

"plumbing" means a drainage system, a venting system and a water system or parts thereof; ("installation de plomberie")

"registered code agency" means a person that has the qualifications and meets the requirements described in subsection 15.11(4); ("organisme inscrit d'exécution du code")

"regulations" means regulations made under this Act. ("règlements") 1992, c.23, s.1(1); 1997, c.24, s.224(1),(2); 1997, c.30, Sched. B, s.1; 1999, c.12, Sched. M, s.1; 2002, c.9, s.2(1)-(3); c.17, Sched. C, s.1; 2002, c.17, Sched. F, Table; 2006, c.19, Sched. O, ss.1, 2

**(1.1) Interpretation.** Except as provided in subsection (1.2), a reference to "this Act" in any provision of this Act shall be deemed to be a reference to this Act excluding sections 15.1 to 15.8. 1997, c.24, s.224(3)

**(1.2) Same.** A reference to "this Act" in subsection 1(1) and sections 2, 16, 19, 20, 21, 27, 31, 36 and 37 includes a reference to sections 15.1 to 15.8. 1997, c.24, s.224(3)

**(1.3) Chief Building Official.** A reference to the "chief building official" in this Act, other than in subsections 1(1), 3(2), (3) and (6) and section 4, includes an inspector who has the same powers and duties as the chief building official,

- (a) in relation to sewage systems by virtue of subsections 3.1(3) or 6.2(4); and
- (b) in relation to plumbing by virtue of subsection 6.1(5). 2002, c.9, s.2(4)

**(2) Exclusion.** This Act does not apply to structures used directly in the extraction of ore from a mine. 1992, c.23, s.1(2)

**1.1- (1) Role of Various Persons.** It is the role of every person who causes a building to be constructed,

- (a) to cause the building to be constructed in accordance with this Act and the building code and with any permit issued under this Act for the building;
- (b) to ensure that construction does not proceed unless any permit required under this Act has been issued by the chief building official; and
- (c) to ensure that construction is carried out only by persons with the qualifications and insurance, if any, required by this Act and the building code. 2002, c.9, s.3

**(2) Role of Designers.** It is the role of a designer,

- (a) if the designer's designs are to be submitted in support of an application for a permit under this Act, to provide designs which are in accordance with this Act and the building code and to provide documentation that is sufficiently detailed to permit the design to be assessed for compliance with this Act and the building code and to allow a builder to carry out the work in accordance with the design, this Act and the building code;
- (b) to perform the role described in clause (a) in respect of only those matters for which the designer has the qualifications, if any, required by this Act and the building code; and



- (c) if the building code requires that all or part of the design or construction of a building be under general review, to perform the general review in respect of only those matters for which the designer has the qualifications, if any, required by this Act and the building code. 2002, c.9, s.3

**(3) Role of Builders.** It is the role of a builder,

- (a) to ensure that construction does not proceed unless any permit required under this Act has been issued by the chief building official;
- (b) to construct the building in accordance with the permit;
- (c) to use appropriate building techniques to achieve compliance with this Act and the building code; and
- (d) when site conditions affect compliance with the building code, to notify the designer and an inspector or the registered code agency, as appropriate. 2002, c.9, s.3

**(4) Role of Manufacturers, etc.** It is the role of manufacturers, suppliers and retailers of products that are intended for use in Ontario in the construction of a building for a purpose that is regulated by this Act or the building code to ensure that the products comply with the standards established under this Act and the building code. 2002, c.9, s.3

**(5) Role of Registered Code Agencies.** It is the role of a registered code agency,

- (a) to exercise powers and perform duties under this Act and the building code in connection with reviewing plans, issuing certificates, inspecting construction and performing other functions in accordance with this Act and the building code; and
- (b) to carry out the duties of a registered code agency under this Act and the building code in respect of only those matters for which the registered code agency is qualified under this Act and the building code. 2002, c.9, s.3

**(6) Role of Chief Building Officials.** It is the role of a chief building official,

- (a) to establish operational policies for the enforcement of this Act and the building code within the applicable jurisdiction;
- (b) to co-ordinate and oversee the enforcement of this Act and the building code within the applicable jurisdiction;
- (c) to exercise powers and perform the other duties assigned to him or her under this Act and the building code; and

- (d) to exercise powers and perform duties in accordance with the standards established by the applicable code of conduct. 2002, c.9, s.3

**(7) Role of Inspectors.** It is the role of an inspector,

- (a) to exercise powers and perform duties under this Act and the building code in connection with reviewing plans, inspecting construction and issuing orders in accordance with this Act and the building code;
- (b) to exercise powers and perform duties in respect of only those matters for which he or she has the qualifications required by this Act and the building code; and
- (c) to exercise powers and perform duties in accordance with the standards established by the applicable code of conduct. 2002, c.9, s.3

**(8) Limitation.** Nothing in this section relieves any person from the duty to comply with any part of this Act or the building code or affects the rights or duties of a person not mentioned in this section in respect of the construction of a building. 2002, c.9, s.3; 2006, c.19, Sched. O, ss.1, 2

## **Enforcement Authorities**

**2.- (1) Administration.** The Minister is responsible for the administration of this Act. 1992, c.23, s.2(1)

**(2) Director.** There shall be a director of the Building and Development Branch of the Ministry of Municipal Affairs and Housing who is appointed by the Lieutenant Governor in Council for the purposes of this Act. 2002, c.9, s.5

**3.- (1) Enforcement by Municipalities.** The council of each municipality is responsible for the enforcement of this Act in the municipality, except where otherwise provided by this Act. 2002, c.9, s.6(1)

**(2) Chief Building Official, Inspectors.** The council of each municipality shall appoint a chief building official and such inspectors as are necessary for the enforcement of this Act in the areas in which the municipality has jurisdiction. 1992, c.23, s.3(2)

**(2.1)** Repealed. 2002, c.9, s.6(2)

**(3) Joint Enforcement.** The councils of two or more municipalities may enter into an agreement,

- (a) providing for the joint enforcement of this Act within their respective municipalities;
- (b) providing for the sharing of costs incurred in the enforcement of this Act within their respective municipalities; and
- (c) providing for the appointment of a chief building official and inspectors. 1992, c.23, s.3(3)

**(4) Joint Jurisdiction.** If an agreement under subsection (3) is in effect, the municipalities have joint jurisdiction in the area comprising the municipalities. 1992, c.23, s.3(4)

**(5) Enforcement by Upper-Tier.** The council of an upper-tier municipality and of one or more municipalities in the upper-tier municipality may enter into an agreement for the enforcement by the upper-tier municipality of this Act in the municipalities and for charging the municipalities the whole or part of the cost. 2002, c.17, Sched. F, Table

**(6) Power of Upper-Tier.** If an agreement under subsection (5) is in effect, the upper-tier municipality has jurisdiction for the enforcement of this Act in the municipalities that are parties to the agreement and shall appoint a chief building official and such inspectors as are necessary for that purpose. 2002, c.17, Sched. F, Table

**(7) Repealed.** 2002, c.17, Sched. F, Table

**(8) Certificate.** The clerk of the municipality or upper-tier municipality shall issue a certificate of appointment bearing the clerk's signature or a facsimile of it to the chief building official and each inspector appointed by the municipality or upper-tier municipality. 1992, c.23, s.3(8); 2002, c.17, Sched. F, Table

**(9) Records.** Every municipality and every upper-tier municipality that has jurisdiction for the enforcement of this Act shall retain such records as may be prescribed by regulation for the prescribed period of time. 2002, c.9, s.6(3); 2002, c.17, Sched. C, s.2

**3.1- (1) Enforcement, Boards of Health.** A board of health, a planning board or a conservation authority prescribed in the building code is responsible for the enforcement of the provisions of this Act and the

building code related to sewage systems in the municipalities and territory without municipal organization prescribed in the building code. 1997, c.30, Sched. B, s.3; 1999, c.12, Sched. M, s.2(1)

**(2) Inspectors.** The board of health, planning board or conservation authority shall appoint such sewage system inspectors as are necessary for the enforcement of this Act in the areas in which the board of health, planning board or conservation authority has jurisdiction under subsection (1). 1999, c.12, Sched. M, s.2(2)

**(3) Powers.** A sewage system inspector appointed under this section in an area of jurisdiction or, if there is more than one inspector in the area of jurisdiction, the inspector designated by the board of health, planning board or conservation authority has the same powers and duties in relation to sewage systems as does the chief building official in respect of buildings. 1999, c.12, Sched. M, s.2(3)

**(4) Jurisdiction.** A board of health, planning board or conservation authority prescribed for the purposes of subsection (1) has jurisdiction for the enforcement of this Act in the prescribed municipalities and territory without municipal organization. 1997, c.30, Sched. B, s.3; 1999, c.12, Sched. M, s.2(4)

**(5) Responsibility.** If sewage system inspectors have been appointed under this section, the chief building official and inspectors appointed under section 3 or 4 shall not exercise their powers under this Act in respect of sewage systems. 1997, c.30, Sched. B, s.3

**(6) Certificate.** The medical officer of health or the secretary-treasurer of a planning board or conservation authority shall issue a certificate of appointment bearing his or her signature, or a facsimile of it, to each sewage system inspector appointed by the board of health, planning board or conservation authority. 1997, c.30, Sched. B, s.3; 1999, c.12, Sched. M, s.2(5)

**(7) Records.** Every board of health, planning board and conservation authority prescribed for the purposes of subsection (1) shall retain such records as may be prescribed by regulation for the prescribed period of time. 2002, c.9, s.7

**4.- (1) Provincial Enforcement.** Subject to section 3.1, Ontario is responsible for the enforcement of this Act in a territory without municipal organization. 1992, c.23, s.4(1); 1997, c.30, Sched. B, s.4



**(2) Agreements.** The council of a municipality and the Crown in right of Ontario represented by the Minister may enter into an agreement providing for the enforcement of this Act in the municipality by Ontario subject to such payment in respect of costs as is set out in the agreement. 1992, c.23, s.4(2)

**(3) Idem.** If an agreement under subsection (2) is in effect, Ontario has jurisdiction for the enforcement of this Act in the municipality. 1992, c.23, s.4(3)

**(4) Inspectors.** Inspectors necessary for the enforcement of this Act in the areas in which Ontario has jurisdiction shall be appointed under the *Public Service Act*. 1992, c.23, s.4(4)

**(5) Chief Building Official.** The director is the chief building official for the areas in which Ontario has jurisdiction. 1992, c.23, s.4(5)

**(6) Certificate.** The Deputy Minister of Municipal Affairs and Housing shall issue a certificate of appointment bearing his or her signature or a facsimile of it to the director and each inspector appointed under subsection (4). 1992, c.23, s.4(6); 1997, c.24, s.224(5)

#### **4.1- (1) Enforcement by Registered Code Agency**

**Appointed by a Principal Authority.** Subject to this Act and the building code, a principal authority may enter into agreements with registered code agencies authorizing the agency to perform the functions specified in the agreement in respect of the construction of any building or class of building specified in the agreement. 2002, c.9, s.8

**(2) Appointment.** After entering into the agreement with the registered code agency, the principal authority may appoint the agency to perform specified functions in respect of the construction of a building or class of buildings. 2002, c.9, s.8

**(3) Delegation of Power to Appoint.** The principal authority may delegate, in writing, to the chief building official the authority to make appointments described in subsection (2), and may impose conditions or restrictions with respect to the delegation. 2002, c.9, s.8

**(4) Same.** Unless otherwise provided in the building code, an appointment of a registered code agency may authorize the agency to perform all of the applicable functions described in section 15.15,

- (a) before a permit is issued under section 8;
- (b) after a permit is issued under section 8; or
- (c) both before and after a permit is issued under section 8. 2002, c.9, s.8

**(5) Conflicts.** A registered code agency shall not accept an appointment in the circumstances set out in the building code or if it would have a conflict of interest as determined in accordance with the building code. 2002, c.9, s.8

**(6) Effect of Appointment.** A registered code agency shall perform the functions specified in the appointment for the construction of a specified building or class of buildings and subject to the restrictions set out in this Act and the building code, and shall do so in the manner and subject to the restrictions, if any, set out in the building code. 2002, c.9, s.8

**(7) Same.** The duty of the registered code agency to perform those functions begins when the appointment is made and ends when the appointment expires as described in section 15.19 or is terminated in accordance with section 15.20. 2002, c.9, s.8

**(8) Notice to the Director.** A principal authority that appoints a registered code agency shall give the director such information as may be prescribed by regulation. 2002, c.9, s.8

#### **4.2- (1) Enforcement by Registered Code Agency**

**Appointed by an Applicant.** This section applies only if a principal authority authorizes it, by regulation, by-law or resolution, as the case may be, to apply within the jurisdiction of the principal authority. 2002, c.9, s.8

**(2) Appointment.** Subject to this Act and the building code, a prescribed person who is entitled to apply for a permit under section 8 of this Act may appoint a registered code agency to perform all of the functions described in section 15.15 in respect of the construction of a building. 2002, c.9, s.8

**(3) Exception.** Subsection (2) does not apply,

- (a) if a registered code agency has been appointed by a principal authority to perform any function in respect of the construction; or
- (b) if an inspector has begun to perform any function in respect of the construction. 2002, c.9, s.8

**(4) Manner of Appointment.** The appointment must be made in writing in the prescribed manner and is subject to the prescribed conditions and restrictions. 2002, c.9, s.8

**(5) Conflicts.** A registered code agency shall not accept an appointment in the circumstances set out in the building code or if it would have a conflict of interest as determined in accordance with the building code. 2002, c.9, s.8

**(6) Effect of Appointment.** A registered code agency shall perform its functions for the specified building subject to the restrictions set out in this Act and the building code and shall do so in the manner and subject to the restrictions, if any, set out in the building code. 2002, c.9, s.8

**(7) Same.** The duty of the registered code agency to perform those functions begins when the appointment is made and ends when the appointment expires as described in section 15.19 or is terminated in accordance with section 15.20. 2002, c.9, s.8

**(8) Replacement Agency.** A person who has appointed a registered code agency under subsection (2) in respect of the construction of a building cannot replace the agency after it has begun to perform any function in respect of the construction unless the appointment of that agency has expired as described in section 15.19 or has been terminated in accordance with section 15.20. 2002, c.9, s.8

**(9) Notice to Director.** The person who appoints a registered code agency under this section shall give the director such information as may be prescribed by regulation. 2002, c.9, s.8

**(10) Notice to Chief Building Official.** The person who appoints a registered code agency under this section shall give the chief building official such information as may be prescribed by regulation. 2002, c.9, s.8

**5.- (1) Agreements re Enforcement.** The council of a municipality adjacent to territory without municipal organization and the Crown in right of Ontario represented by the Minister may enter into an agreement providing for the enforcement of this Act by the municipality in such part of the territory without municipal organization and subject to such payment in respect of costs as is set out in the agreement. 1992, c.23, s.5(1)

**(2) Area of Municipal Jurisdiction.** The municipality has jurisdiction for the enforcement of this Act in the area designated in the agreement. 1992, c.23, s.5(2)

**(3) Application.** An agreement under this section may apply to the enforcement of all or any part of this Act or the building code. 1997, c.30, Sched. B, s.5

**6.- (1) Agreement re Review of Plans.** Two or more principal authorities may enter into an agreement providing for,

- (a) the review by a principal authority for compliance with the building code of plans and specifications for the construction of a building within its area of jurisdiction;
- (b) an expedited review by another principal authority for compliance with the building code of plans and specifications for the construction of substantially similar buildings;
- (c) the allocation of responsibility for reviews for compliance with the building code of plans and specifications for the construction of buildings;
- (d) the resolution of disagreements about whether plans and specifications comply with the building code;
- (e) indemnification; and
- (f) such other matters as may be necessary to give effect to the agreement. 2002, c.9, s.9

**(2) Delegation.** A principal authority may delegate to the chief building official the authority to make such decisions under an agreement as may be necessary for its implementation. 2002, c.9, s.9

**6.1- (1) Agreement re Plumbing.** Despite any other provision of this Act, the council of an upper-tier municipality and of one or more municipalities in the upper-tier municipality may enter into an agreement for the enforcement by the upper-tier municipality of the provisions of this Act and the building code related to plumbing in the municipalities and for charging the municipalities the whole or part of the cost. 2002, c.17, Sched. C, s.3(1)

**(2) Delegation to Health Unit.** If an agreement under subsection (1) is in effect, the council of an upper-tier municipality may by agreement delegate its powers under subsection (1) to a board of health having jurisdiction in the municipalities that are parties to the agreement. 2002, c.9, s.10; 2002, c.17, Sched. C, s.3(2)

**(3) Delegation by Municipality.** A municipality that is not a party to an agreement under subsection (1) may enter into an agreement with the board of health having jurisdiction in the municipality for the enforcement of the provisions of this Act and the building code relating to plumbing. 2002, c.9, s.10

**(4) Plumbing Inspectors.** The council of an upper-tier municipality or the board of health may appoint plumbing inspectors for the purpose of this section. 2002, c.9, s.10; 2002, c.17, Sched. C, s.3(3)

**(5) Powers.** A plumbing inspector appointed under this section or, if there is more than one inspector in the area of jurisdiction, the senior plumbing inspector has the same powers and duties in relation to plumbing as does the chief building official in respect of buildings other than the issuance of conditional permits. 2002, c.9, s.10

**(6) Responsibility.** If plumbing inspectors have been appointed under this section, the chief building official and inspectors appointed under section 3 or 4 shall not exercise their powers under this Act in respect of plumbing. 2002, c.9, s.10

**(7) Application.** Subsections 3(8) and (9) and section 7 apply with necessary modifications to the council of an upper-tier municipality or a board of health that has assumed responsibility for plumbing under this section. 2002, c.9, s.10; 2002, c.17, Sched. C, s.3(4)

**(8) Transition, Plumbing.** If, on July 1, 1993, an upper-tier municipality was carrying out plumbing inspections under the *Ontario Water Resources Act* in the municipalities that formed part of the upper-tier municipality, the upper-tier municipality shall enforce the provisions of this Act and the building code related to plumbing in all of the municipalities forming part of the upper-tier municipality until the council of the upper-tier municipality by by-law determines otherwise, whereupon section 3 applies. 2002, c.17, Sched. C, s.3(5)

**(9) Same.** Subsections (4) to (7) apply with necessary modifications to an upper-tier municipality that has assumed responsibility for plumbing under subsection (8). 2002, c.9, s.10; 2002, c.17, Sched. C, s.3(6)

**(10) Interpretation.** For the purpose of subsection (8), an upper-tier municipality that has been deemed to be a county by any general or special Act for the purposes of section 76 of the *Ontario Water Resources Act*, as it read on June 30, 1993, shall be deemed to be an upper-tier municipality that was carrying on plumbing inspections under the *Ontario Water Resources Act* in the municipalities that formed part of the upper-tier municipality for municipal purposes on July 1, 1993. 2002, c.17, Sched. C, s.3(7)

**6.2- (1) Agreement re Sewage Systems.** Despite any other provision of this Act, the council of an upper-tier municipality and of one or more municipalities in the upper-tier municipality may enter into an agreement for the enforcement by the upper-tier municipality of the provisions of this Act and the building code related to sewage systems in the municipalities and for charging the municipalities the whole or part of the cost. 2002, c.17, Sched. C, s.3(8)

**(2) Delegation.** A municipality that is not a party to an agreement under subsection (1) may enter into an agreement with a board of health or a conservation authority having jurisdiction in the municipality for the enforcement of the provisions of this Act and the building code related to sewage systems. 2002, c.9, s.10

**(3) Inspectors.** The council of an upper-tier municipality, board of health or conservation authority may appoint sewage system inspectors for the purposes of this section. 2002, c.9, s.10; 2002, c.17, Sched. C, s.3(9)

**(4) Powers.** A sewage system inspector appointed under this section in an area of jurisdiction or, if there is more than one inspector in the area of jurisdiction, the inspector designated by the council of an upper-tier municipality, board of health or conservation authority has the same powers and duties in relation to sewage systems as does the chief building official in respect of buildings. 2002, c.9, s.10; 2002, c.17, Sched. C, s.3(10)

**(5) Responsibility.** If sewage system inspectors have been appointed under this section, the chief building official and inspectors appointed under section 3 or 4 shall not exercise their powers under this Act in respect of sewage systems. 2002, c.9, s.10



**(6) Application.** Subsections 3(8) and (9) and section 7 apply with necessary modifications to the council of an upper-tier municipality, board of health or conservation authority that has assumed responsibility for sewage systems under this section. 2002, c.9, s.10; 2002, c.17, Sched. C, s.3(11)

**7. By-laws, Resolutions, Regulations.** The council of a municipality or of a upper-tier municipality that has entered into an agreement under subsection 3(5) or a board of health prescribed for the purposes of section 3.1 may pass by-laws, a planning board prescribed for the purposes of section 3.1 may pass resolutions and a conservation authority prescribed for the purposes of section 3.1 or the Lieutenant Governor in Council may make regulations, applicable in the area in which the municipality, upper-tier municipality, board of health, planning board, conservation authority or the Province of Ontario, respectively, has jurisdiction for the enforcement of this Act,

- (a) prescribing classes of permits under this Act, including permits in respect of any stage of construction or demolition;
- (b) providing for applications for permits and requiring the applications to be accompanied by such plans, specifications, documents and other information as is prescribed;
- (c) requiring the payment of fees on applications for and issuance of permits and prescribing the amounts thereof;
- (d) providing for refunds of fees under such circumstances as are prescribed;
- (e) requiring a person specified in the building code to give notice to the chief building official or an inspector or to a registered code agency if one is appointed, of any of the stages of construction specified in the building code, in addition to the stages of construction prescribed under subsection 10.2 (1) and prescribing the period of time after such notice is given during which an inspection may be carried out;
- (f) prescribing forms respecting permits and applications for permits and providing for their use;
- (g) enabling the chief building official to require that a set of plans of a building or any class of buildings as constructed be filed with the chief building official on completion of the construction under such conditions as may be prescribed in the building code;
- (h) providing for the transfer of permits when land changes ownership;
- (i) requiring the person to whom a permit is issued to erect and maintain fences to enclose the site of the construction or demolition within such areas of the municipality as may be prescribed;

- (j) prescribing the height and description of the fences required under clause (i). 1992, c.23, s.7; 1997, c.30, Sched. B, s.6; 1999, c.12, Sched. M, s.3; 2002, c.9, s.11(1); 2002, c.17, Sched. F, Table; 2006, c.19, Sched. O, ss.1, 2

**(2) Fees.** The total amount of the fees authorized under clause (1)(c) must not exceed the anticipated reasonable costs of the principal authority to administer and enforce this Act in its area of jurisdiction. 2002, c.9, s.11(2)

**(3) Reduction in Fees.** A regulation, by-law or resolution establishing fees under clause (1)(c) must provide for reduced fees to be payable in respect of the construction of a building for which a registered code agency is appointed under section 4.2. 2002, c.9, s.11(2)

**(4) Report on Fees.** Every 12 months, each principal authority shall prepare a report that contains such information as may be prescribed about any fees authorized under clause (1)(c) and costs of the principal authority to administer and enforce this Act in its area of jurisdiction. 2002, c.9, s.11(2)

**(5) Same.** The principal authority shall make its report available to the public in the manner required by regulation. 2002, c.9, s.11(2)

**(6) Change in Fees.** If a principal authority proposes to change any fee imposed under clause (1)(c) for applications for a permit or for the issuance of a permit, the principal authority shall,

- (a) give notice of the proposed changes in fees to such persons as may be prescribed; and
- (b) hold a public meeting concerning the proposed changes. 2002, c.9, s.11(2)

**(7) Same, Notice.** The notice of proposed changes in fees must contain the prescribed information, including information about the public meeting, and must be given in the prescribed manner. 2002, c.9, s.11(2)

**(8) Same, Public Meeting.** The public meeting concerning proposed changes in fees must be held within the period specified by regulation before the regulation, by-law or resolution to implement the proposed changes is made. 2002, c.9, s.11(2)





**(9) Forms.** The power to prescribe forms under clause (1)(f) does not include the power to prescribe a form for a particular purpose where there is a form for that purpose prescribed in the building code. 2002, c.9, s.11(2)

**7.1- (1) Code of Conduct.** A principal authority shall establish and enforce a code of conduct for the chief building official and inspectors. 2002, c.9, s.12

**(2) Purposes.** The following are the purposes of a code of conduct:

- (a) To promote appropriate standards of behaviour and enforcement actions by the chief building official and inspectors in the exercise of a power or the performance of a duty under this Act or the building code.
- (b) To prevent practices which may constitute an abuse of power, including unethical or illegal practices, by the chief building official and inspectors in the exercise of a power or the performance of a duty under this Act or the building code.
- (c) To promote appropriate standards of honesty and integrity in the exercise of a power or the performance of a duty under this Act or the building code by the chief building official and inspectors. 2002, c.9, s.12

**(3) Contents.** A code of conduct must provide for its enforcement and include policies or guidelines to be used when responding to allegations that the code has been breached and disciplinary actions that may be taken if the code is breached. 2002, c.9, s.12

**(4) Public Notice.** The principal authority shall ensure that the code of conduct is brought to the attention of the public. 2002, c.9, s.12

## **Construction and Demolition**

**8.- (1) Building Permits.** No person shall construct or demolish a building or cause a building to be constructed or demolished unless a permit has been issued therefor by the chief building official. 1992, c.23, s.8(1); 1997, c.30, Sched. B, s.7(1)

**(1.1) Application for Permit.** An application for a permit to construct or demolish a building may be made by a person specified by regulation and the prescribed form must be used and be accompanied by the documents and information specified by regulation. 2002, c.9, s.14(1)

**(2) Issuance of Permits.** The chief building official shall issue a permit referred to in subsection (1) unless,

- (a) the proposed building, construction or demolition will contravene this Act, the building code or any other applicable law;
- (b) the applicant is a builder or vendor as defined in the *Ontario New Home Warranties Plan Act* and is not registered under that Act;
- (c) a person who prepared drawings, plans, specifications or other documents or gave an opinion concerning the compliance of the proposed building or construction with the building code does not have the applicable qualifications, if any, set out in the building code or does not have the insurance, if any, required by the building code;
- (d) the plans review certificate, if any, required for the application does not contain the prescribed information;
- (e) the application for the permit is not complete; or
- (f) any fees due have not been paid. 2002, c.9, s.14(2)

**(2.1) Restriction.** If the application includes a plans review certificate that contains the prescribed information, the chief building official is not entitled to refuse to issue the permit on the grounds that the proposed construction of the building to which the certificate relates does not comply with the building code. 2002, c.9, s.14(2)

**(2.2) Decision.** When an application for a permit contains the prescribed information, the chief building official is required to determine within the period prescribed by regulation whether to issue the permit or to refuse to issue it. 2002, c.9, s.14(2)

**(2.3) Same, Reasons for Refusal.** If the chief building official refuses to issue the permit, he or she shall inform the applicant of all of the reasons for the refusal of the permit and shall do so within the period prescribed by regulation. 2002, c.9, s.14(2)

**(3) Conditional Permit.** Even though all requirements have not been met to obtain a permit under subsection (2), the chief building official may issue a conditional permit for any stage of construction if,

- (a) compliance with by-laws passed under sections 34 and 38 of the *Planning Act* and with such other applicable law as may be set out in the building code has been achieved in respect of the proposed building or construction;
- (b) the chief building official is of the opinion that unreasonable delays in the construction would occur if a conditional permit is not granted; and



- (c) the applicant and such other person as the chief building official determines agree in writing with the municipality, upper-tier municipality, board of health, planning board, conservation authority or the Crown in right of Ontario to,
- (i) assume all risk in commencing the construction,
  - (ii) obtain all necessary approvals in the time set out in the agreement or, if none, as soon as practicable,
  - (iii) file plans and specifications of the complete building in the time set out in the agreement,
  - (iv) at the applicant's own expense, remove the building and restore the site in the manner specified in the agreement if approvals are not obtained or plans filed in the time set out in the agreement, and
  - (v) comply with such other conditions as the chief building official considers necessary, including the provision of security for compliance with subclause (iv). 1992, c.23, s.8(3); 1997, c.30, Sched. B, s.7(2); 1999, c.12, Sched. M, s.5(1); 2002, c.17, Sched. F, Table

**(3.1) Delegation re Conditional Permits.** A principal authority may, in writing, delegate to the chief building official the power to enter into agreements described in clause (3)(c) and may impose conditions or restrictions with respect to the delegation. 2002, c.9, s.14(3)

**(4) Criteria.** In considering whether a conditional permit should be granted, the chief building official shall, among other matters, have regard to the potential difficulty in restoring the site to its original state and use if required approvals are not obtained. 1992, c.23, s.8(4)

**(5) Registration.** Any agreement entered into under clause (3)(c) may be registered against the land to which it applies and the municipality, upper-tier municipality, board of health, planning board, conservation authority or the Province of Ontario, as the case may be, is entitled to enforce its provisions against the owner and, subject to the *Registry Act* and the *Land Titles Act*, any and all subsequent owners of the land. 1999, c.12, Sched. M, s.5(2); 2002, c.17, Sched. F, Table

**(6) Enforcement of Agreement.** If the chief building official determines that a building has not been removed or a site restored as required by an agreement under clause (3)(c), the chief building official may cause the building to be removed and the site restored and for this purpose

the chief building official, an inspector and their agents may enter upon the land and into the building governed by the agreement at any reasonable time without a warrant. 1992, c.23, s.8(6)

**(7) Lien.** If the building is in a municipality, the municipality shall have a lien on the land for the amount spent on the removal of the building and restoration of the site under subsection (6) and the amount shall have priority lien status as described in section 1 of the *Municipal Act, 2001* or section 3 of the *City of Toronto Act, 2006*, as the case may be. 2002, c.17, Sched. F, Table; 2006, c.32, Sched. C, s.3(1)

**(8) Deemed Taxes.** If the building is in territory without municipal organization, the amount spent on the removal of the building and restoration of the site under subsection (6) shall be deemed to be taxes imposed under section 3 of the *Provincial Land Tax Act* for the purposes of sections 26 and 27 of that Act. 1992, c.23, s.8(8)

**(9) Referral of Plans, etc.** Upon reasonable grounds, the chief building official or registered code agency may refer drawings, plans or specifications accompanying applications for permits or the reports arising out of the general review of the construction of a building to the Association of Professional Engineers of Ontario or the Ontario Association of Architects for the purpose of determining if the *Professional Engineers Act* or the *Architects Act* is being contravened. 2002, c.9, s.14(4)

**(9.1) Same.** At the request of the Association of Professional Engineers of Ontario or the Ontario Association of Architects, the chief building official shall refer documents and information described in subsection (9) to those associations for the purpose of determining if the *Professional Engineers Act* or the *Architects Act* is being contravened. 2002, c.9, s.14(4)

**(10) Revocation of Permits.** Subject to section 25, the chief building official may revoke a permit issued under this Act,

- (a) if it was issued on mistaken, false or incorrect information;
- (b) if, after six months after its issuance, the construction or demolition in respect of which it was issued has not, in the opinion of the chief building official, been seriously commenced;
- (c) if the construction or demolition of the building is, in the opinion of the chief building official, substantially suspended or discontinued for a period of more than one year;
- (d) if it was issued in error;
- (e) if the holder requests in writing that it be revoked; or

- (f) if a term of the agreement under clause (3)(c) has not been complied with. 1992, c.23, s.8(10)

**(11) Prohibition.** No person shall construct or demolish a building or cause a building to be constructed or demolished except in accordance with this Act and the building code. 1992, c.23, s.8(11)

**(12) Notice of Change.** No person shall make a material change or cause a material change to be made to a plan, specification, document or other information on the basis of which a permit was issued without notifying, filing details with and obtaining the authorization of the chief building official. 1992, c.23, s.8(12)

**(13) Prohibition.** No person shall construct or demolish a building or cause a building to be constructed or demolished except in accordance with the plans, specifications, documents and any other information on the basis of which a permit was issued or any changes to them authorized by the chief building official. 1992, c.23, s.8(13)

**(14) Restriction.** If a request for authorization referred to in subsection (12) or (13) is accompanied by a change certificate that contains the prescribed information, the chief building official is not entitled to refuse to authorize the change on the grounds that the construction of the building to which the certificate relates does not comply with the building code. 2002, c.9, s.14(5)

**9.- (1) Equivalent Materials, etc.** The chief building official or a registered code agency may allow the use of materials, systems and building designs that are not authorized in the building code if, in the opinion of the chief building official or registered code agency, the proposed materials, systems and building designs will achieve the level of performance required by the building code. 2002, c.9, s.15

**(2) Conditions.** The chief building official or registered code agency, as the case may be, may impose conditions on the use of the materials, systems and building designs, including conditions relating to the construction, operation or maintenance of the building. 2002, c.9, s.15

**(3) Restrictions.** The powers of the chief building official and registered code agency under subsection (1) to allow the use of materials, systems and building designs and under subsection (2) to impose conditions are subject to such conditions as may be set out in the building code. 2002, c.9, s.15

**(4) Revocation.** The chief building official may alter or revoke a condition imposed under subsection (2). 2002, c.9, s.15

**(5) Repeal.** This section is repealed on a day to be named by proclamation of the Lieutenant Governor. 2002, c.9, s.15

**10.- (1) Change of Use.** Even though no construction is proposed, no person shall change the use of a building or part of a building or permit the use to be changed if the change would result in an increase in hazard, as determined in accordance with the building code, unless a permit has been issued by the chief building official. 2002, c.9, s.16

**(2) Permit.** The chief building official shall issue a permit under subsection (1), unless,

- (a) the building if used as proposed would result in a contravention of this Act or the building code or any other applicable law;
- (b) the application for it is incomplete; or
- (c) any fees due are unpaid. 1992, c.23, s.10

**10.1 Prohibition re Sewage Systems.** No person shall operate or maintain a sewage system or permit a sewage system to be operated or maintained except in accordance with this Act and the building code. 1997, c.30, Sched. B, s.9

**10.2- (1) Notice of Readiness for Inspection.** At each stage of construction specified in the building code, the prescribed person shall notify the chief building official or the registered code agency, if any, that the construction is ready to be inspected. 2002, c.9, s.17

**(2) Inspection.** After the notice is received, an inspector or the registered code agency, as the case may be, shall carry out the inspection required by the building code within the prescribed period. 2002, c.9, s.17

**11.- (1) Occupancy or Use after Completion.** Except as authorized by the building code, a person shall not occupy or use a building or part of a building that is newly erected or installed or permit it to be occupied or used until the requirements set out in this section are met. 2002, c.9, s.18

**(2) Notice of Date of Completion.** Notice of the date of completion of the building or part must be given to the chief building official or the registered code agency, if any. 2002, c.9, s.18

**(3) Final Certificate.** If a registered code agency has been appointed for the building or part of the building by a principal authority to perform the functions described in clause 4.1(4)(b) or (c) or has been appointed under section 4.2, a final certificate that contains the prescribed information must be issued. 2002, c.9, s.18

- (4) Inspection, etc.** If subsection (3) does not apply,
- (a) either the building or part must be inspected or 10 days must elapse after notice of the date of completion is served on the chief building official; and
  - (b) any order made under section 12 must be complied with. 2002, c.9, s.18

**12.- (1) Inspection of Building Site.** An inspector may enter upon land and into buildings at any reasonable time without a warrant for the purpose of inspecting the building or site in respect of which a permit is issued or an application for a permit is made. 1992, c.23, s.12(1)

**(2) Order.** An inspector who finds a contravention of this Act or the building code may make an order directing compliance with this Act or the building code and may require the order to be carried out immediately or within such time as is specified in the order. 1992, c.23, s.12(2)

**(3) Service.** The order shall be served on the person whom the inspector believes is contravening this Act or the building code. 1992, c.23, s.12(3)

**(4) Form and Contents.** The prescribed form must be used for the order and it must contain sufficient information to specify the nature of the contravention and its location and the nature of the compliance that is required. 2002, c.9, s.19

**(5) Posting.** The inspector may post a copy of the order on the site of the construction or demolition. 1992, c.23, s.12(5)

**13.- (1) Order Not to Cover.** An inspector may make an order prohibiting the covering or enclosing of any part of a building pending inspection. 1992, c.23, s.13(1)

**(1.1) Form of Order.** The prescribed form must be used for an order made under this section. 2002, c.9, s.20(1)

**(2) Service.** The order shall be served on the person to whom the permit is issued, if any, and on such other persons affected thereby as the inspector determines. 1992, c.23, s.13(2)

**(3) Posting.** The inspector may post a copy of the order on the site of the construction. 1992, c.23, s.13(3)

**(4) Inspection.** An inspection shall be made within a reasonable time after the person to whom the order is made has given notice that the part of the building is ready for inspection. 1992, c.23, s.13(4)

**(5) Service.** Section 27 does not apply to a notice under subsection (4). 1992, c.23, s.13(5)

**(6) Order to Uncover.** A chief building official or registered code agency who has reason to believe that part of a building that is covered or enclosed has not been constructed in compliance with this Act or the building code may order the persons responsible for the construction to uncover the part at their own expense for the purpose of an inspection if,

- (a) the part was covered or enclosed contrary to an order made under subsection (1);
- (b) a notice required to be given to the chief building official, registered code agency or inspector before the part was covered or enclosed under a by-law, resolution or regulation made under clause 7(e) was not given, or a notice required under section 10.2 was not received;
- (c) in cases where a notice required under section 10.2 is received, the period prescribed under subsection 10.2(2) did not elapse before the part was covered or enclosed;
- (d) in cases where a notice required by a by-law, resolution or regulation made under clause 7(e) is given,
  - (i) the inspection period prescribed under clause 7(e) did not elapse before the part was covered or enclosed, or
  - (ii) if an inspection period is not prescribed under clause 7(e), a reasonable period of time after the notice was given did not elapse before the part was covered or enclosed; or
- (e) the part has been constructed without a permit being issued. 1992, c.23, s.13(6); 2002, c.9, s.20(2); 2006, c.19, Sched. O, ss.1, 2





**14.- (1) Stop Work Order.** If an order made under section 12 or 13 is not complied with within the time specified in it, or where no time is specified, within a reasonable time, the chief building official or registered code agency, as the case may be may order that all or any part of the construction or demolition cease. 1992, c.23, s.14(1); 2002, c.9, s.21(1)

**(1.1) Form of Order.** The prescribed form must be used for the order. 2002, c.9, s.21(2)

**(2) Service.** The order shall be served on such persons affected thereby as the chief building official or registered code agency determines and a copy shall be posted on the site of the construction or demolition. 1992, c.23, s.14(2); 2002, c.9, s.21(3)

**(3) Timing.** The order is effective from the time it is posted under subsection (2). 1992, c.23, s.14(3)

**(4) Effect of Order.** If an order to cease construction or demolition is made, no person shall perform any act in the construction or demolition of the building in respect of which the order is made other than work necessary to carry out the order made under section 12 or 13. 1992, c.23, s.14(4)

**(5) Referral to Chief Building Official.** When a registered code agency makes an order under this section, the agency shall refer the matter to the chief building official as soon as practicable. 2002, c.9, s.21(4)

**(6) Same.** The referral must be made in the prescribed manner. 2002, c.9, s.21(4)

**(7) Effect of Referral.** After making the referral, the registered code agency shall take no further steps in respect of the matter to which the order refers and the principal authority that issued the permit is responsible for the enforcement of this Act in respect of the matter. 2002, c.9, s.21(4)

**(8) Powers of Chief Building Official.** The chief building official may amend or rescind any order made by the registered code agency in respect of the matter. 2002, c.9, s.21(4)

## Property Standards

**15.** Repealed. 2002, c.9, s.22

**15.1- (1) Municipal Property Standards.** In sections 15.1 to 15.8 inclusive,

"committee" means a property standards committee established under section 15.6; ("comité")

"occupant" means any person or persons over the age of 18 years in possession of the property; ("occupant")

"owner" includes,

- (a) the person for the time being managing or receiving the rent of the land or premises in connection with which the word is used, whether on the person's own account or as agent or trustee of any other person, or who would so receive the rent if such land and premises were let, and
- (b) a lessee or occupant of the property who, under the terms of a lease, is required to repair and maintain the property in accordance with the standards for the maintenance and occupancy of property; ("propriétaire")

"property" means a building or structure or part of a building or structure, and includes the lands and premises appurtenant thereto and all mobile homes, mobile buildings, mobile structures, outbuildings, fences and erections thereon whether heretofore or hereafter erected, and includes vacant property; ("bien")

"repair" includes the provision of facilities, the making of additions or alterations or the taking of any other action that may be required to ensure that a property conforms with the standards established in a by-law passed under this section. ("réparation") 1997, c.24, s.224(8)

**(2) Adoption of Policy.** Where there is no official plan in effect in a municipality, the council of the municipality may, by by-law approved by the Minister, adopt a policy statement containing provisions relating to property conditions. 1997, c.24, s.224(8)

**(3) Standards for Maintenance and Occupancy.** The council of a municipality may pass a by-law to do the following things if an official plan that includes provisions relating to property conditions is in effect in the municipality or if the council of the municipality has adopted a policy statement as mentioned in subsection (2):

1. Prescribing standards for the maintenance and occupancy of property within the municipality or within any defined area or areas and for prohibiting the occupancy or use of such property that does not conform with the standards.
2. Requiring property that does not conform with the standards to be repaired and maintained to conform with the standards or the site to be cleared of all buildings, structures, debris or refuse and left in graded and levelled condition. 1997, c.24, s.224(8)

**(4) No Distinction on the Basis of Relationship.** The authority to pass a by-law under subsection (3) does not include the authority to pass a by-law that sets out requirements, standards or prohibitions that have the effect of distinguishing between persons who are related and persons who are unrelated in respect of the occupancy or use of a property, including the occupancy or use as a single housekeeping unit. 1997, c.24, s.224(8)

**(5) Provision of No Effect.** A provision in a by-law is of no effect to the extent that it contravenes the restrictions described in subsection (4). 1997, c.24, s.224(8)

**15.2- (1) Inspection of Property Without Warrant.** Where a by-law under section 15.1 is in effect, an officer may, upon producing proper identification, enter upon any property at any reasonable time without a warrant for the purpose of inspecting the property to determine,

- (a) whether the property conforms with the standards prescribed in the by-law; or
- (b) whether an order made under subsection (2) has been complied with. 1997, c.24, s.224(8)

**(2) Contents of Order.** An officer who finds that a property does not conform with any of the standards prescribed in a by-law passed under section 15.1 may make an order,

- (a) stating the municipal address or the legal description of such property;
- (b) giving reasonable particulars of the repairs to be made or stating that the site is to be cleared of all buildings, structures, debris or refuse and left in a graded and levelled condition;

- (c) indicating the time for complying with the terms and conditions of the order and giving notice that, if the repair or clearance is not carried out within that time, the municipality may carry out the repair or clearance at the owner's expense; and
- (d) indicating the final date for giving notice of appeal from the order. 1997, c.24, s.224(8)

**(3) Service and Posting of Order.** The order shall be served on the owner of the property and such other persons affected by it as the officer determines and a copy of the order may be posted on the property. 1997, c.24, s.224(8)

**(4) Registration of Order.** The order may be registered in the proper land registry office and, upon such registration, any person acquiring any interest in the land subsequent to the registration of the order shall be deemed to have been served with the order on the day on which the order was served under subsection (3) and, when the requirements of the order have been satisfied, the clerk of the municipality shall forthwith register in the proper land registry office a certificate that such requirements have been satisfied, which shall operate as a discharge of the order. 1997, c.24, s.224(8)

**15.3- (1) Appeal of Order.** An owner or occupant who has been served with an order made under subsection 15.2(2) and who is not satisfied with the terms or conditions of the order may appeal to the committee by sending a notice of appeal by registered mail to the secretary of the committee within 14 days after being served the order. 1997, c.24, s.224(8)

**(2) Confirmation of Order.** An order that is not appealed within the time referred to in subsection (1) shall be deemed to be confirmed. 1997, c.24, s.224(8)

**(3) Duty of Committee.** The committee shall hear the appeal. 2002, c.9, s.24

**(3.1) Powers of Committee.** On an appeal, the committee has all the powers and functions of the officer who made the order and the committee may do any of the following things if, in the committee's opinion, doing so would maintain the general intent and purpose of the by-law and of the official plan or policy statement:

1. Confirm, modify or rescind the order to demolish or repair.
2. Extend the time for complying with the order. 2002, c.9, s.24

**(4) Appeal to Court.** The municipality in which the property is situate or any owner or occupant or person affected by a decision under subsection (3.1) may appeal to the Superior Court of Justice by notifying the clerk of the municipality in writing and by applying to the court within 14 days after a copy of the decision is sent. 2002, c.9, s.24

**(5) Appointment.** The Superior Court of Justice shall appoint, in writing, a time and place for the hearing of the appeal and may direct in the appointment the manner in which and the persons upon whom the appointment is to be served. 2002, c.9, s.24

**(6) Judge's Powers.** On the appeal, the judge has the same powers and functions as the committee. 1997, c.24, s.224(8)

**(7) Effect of Decisions.** An order that is deemed to be confirmed under subsection (2) or that is confirmed or modified by the committee under subsection (3) or a judge under subsection (6), as the case may be, shall be final and binding upon the owner and occupant who shall carry out the repair or demolition within the time and in the manner specified in the order. 1997, c.24, s.224(8)

**15.4- (1) Power of Municipality if Order not Complied with.** If an order of an officer under subsection 15.2(2) is not complied with in accordance with the order as deemed confirmed or as confirmed or modified by the committee or a judge, the municipality may cause the property to be repaired or demolished accordingly. 1997, c.24, s.224(8)

**(2) Warrantless Entry.** For the purpose of subsection (1), employees or agents of the municipality may enter the property at any reasonable time without a warrant in order to repair or demolish the property. 1997, c.24, s.224(8)

**(3) No Liability.** Despite subsection 31(2), a municipal corporation or a person acting on its behalf is not liable to compensate the owner, occupant or any other person by reason of anything done by or on behalf of the municipality in the reasonable exercise of its powers under subsection (1). 1997, c.24, s.224(8)

**(4) Lien.** The municipality shall have a lien on the land for the amount spent on the repair or demolition under subsection (1) and the amount shall have priority lien status as described in section 1 of the *Municipal Act, 2001* or section 3 of the *City of Toronto Act, 2006*, as the case may be. 2002, c.17, Sched. F, Table; 2006, c.32, Sched. C, s.3(2)

**15.5- (1) Certificate of Compliance.** An officer who, after inspecting a property, is of the opinion that the property is in compliance with the standards established in a by-law passed under section 15.1 may issue a certificate of compliance to the owner. 1997, c.24, s.224(8)

**(2) Request for Certificate.** An officer shall issue a certificate to an owner who requests one and who pays the fee set by the council of the municipality in which the property is located. 1997, c.24, s.224(8)

**(3) Fee for Certificate.** A council of a municipality may set a fee for the issuance of a certificate. 1997, c.24, s.224(8)

**15.6- (1) Property Standards Committee.** A by-law passed under section 15.1 shall provide for the establishment of a committee composed of such persons, not fewer than three, as the council considers advisable to hold office for such term and on such conditions as the by-law may establish. 1997, c.24, s.224(8)

**(2) Filling of Vacancies.** The council of the municipality shall forthwith fill any vacancy that occurs in the membership of the committee. 1997, c.24, s.224(8)

**(3) Compensation.** The members of the committee shall be paid such compensation as the council may provide. 1997, c.24, s.224(8)

**(4) Chair.** The members shall elect a chair from among themselves; when the chair is absent through illness or otherwise, the committee may appoint another member as acting chair. 1997, c.24, s.224(8)

**(5) Quorum.** A majority of the members constitutes a quorum for transacting the committee's business. 1997, c.24, s.224(8)

**(6) Secretary.** The members shall provide for a secretary for the committee. 1997, c.24, s.224(8)

**(7) Duty of Secretary.** The secretary shall keep on file the records of all official business of the committee, including records of all applications and minutes of all decisions respecting those applications, and section 253 of the *Municipal Act, 2001* or section 199 of the *City of Toronto Act, 2006*, as the case may be, applies with necessary modifications to the minutes and records. 2002, c.17, Sched. F, Table; 2006, c.32, Sched. C, s.3(3)

**(8) Rules of Procedure and Oaths.** The committee may, subject to subsection (9), adopt its own rules of procedure and any member may administer oaths. 1997, c.24, s.224(8)

**(9) Where Committee Required to Give Notice.** The committee shall give notice or direct that notice be given of the hearing of an appeal to such person as the committee considers advisable. 1997, c.24, s.224(8)

**15.7- (1) Emergency Order re Non-Conformity with Standards.** If upon inspection of a property the officer is satisfied that there is non-conformity with the standards in a by-law passed under section 15.1 to such extent as to pose an immediate danger to the health or safety of any person, the officer may make an order containing particulars of the non-conformity and requiring remedial repairs or other work to be carried out immediately to terminate the danger. 1997, c.24, s.224(8)

**(2) Service.** The order shall be served on the owner of the property and such other persons affected thereby as the officer determines and a copy shall be posted on the property. 1997, c.24, s.224(8)

**(3) Emergency Powers.** After making an order under subsection (1), the officer may, either before or after the order is served, take any measures necessary to terminate the danger and, for this purpose, the municipality may, through its employees and agents, at any time enter the property in respect of which the order was made without a warrant. 1997, c.24, s.224(8)

**(4) No Liability.** Despite subsection 31(2), a municipal corporation or a person acting on its behalf is not liable to compensate the owner, occupant or any other person by reason of anything done by or on behalf of the municipality in the reasonable exercise of its powers under subsection (3). 1997, c.24, s.224(8)

**(5) Service.** If the order was not served before measures were taken to terminate the danger, the officer shall serve copies of the order in accordance with subsection (2) as soon as practicable after the measures have been taken, and each copy of the order shall have attached to it a statement by the officer describing the measures taken by the municipality and providing details of the amount expended in taking the measures. 1997, c.24, s.224(8)

**(6) Service of Statement.** If the order was served before the measures were taken, the officer shall serve a copy of the statement mentioned in subsection (5) in accordance with subsection (2) as soon as practicable after the measures have been taken. 1997, c.24, s.224(8)

**(7) Application to Court.** As soon as practicable after the requirements of subsections (5) and (6) have been complied with, the officer shall apply to a judge of the Superior Court of Justice for an order confirming the order made under subsection (1) and the judge shall hold a hearing for that purpose. 1997, c.24, s.224(8); 2002, c.9, s.25

**(8) Powers of Judge.** The judge in disposing of an application under subsection (7) shall,

- (a) confirm, modify or rescind the order; and
- (b) determine whether the amount spent on measures to terminate the danger may be recovered in whole, in part or not at all. 1997, c.24, s.224(8)

**(9) Order Final.** The disposition under subsection (8) is final. 1997, c.24, s.224(8)

**(10) Lien.** The amount determined by the judge to be recoverable shall be a lien on the land and shall have priority lien status as described in section 1 of the *Municipal Act, 2001* or section 3 of the *City of Toronto Act, 2006*, as the case may be. 2002, c.17, Sched. F, Table; 2006, c.32, Sched. C, s.3(4)

**15.8- (1) Inspection Powers of Officer.** For the purposes of an inspection under Section 15.2, an officer may,

- (a) require the production for inspection of documents or things, including drawings or specifications, that may be relevant to the property or any part thereof;
- (b) inspect and remove documents or things relevant to the property or part thereof for the purpose of making copies or extracts;





- (c) require information from any person concerning a matter related to a property or part thereof;
- (d) be accompanied by a person who has special or expert knowledge in relation to a property or part thereof;
- (e) alone or in conjunction with a person possessing special or expert knowledge, make examinations or take tests, samples or photographs necessary for the purposes of the inspection; and
- (f) order the owner of the property to take and supply at the owner's expense such tests and samples as are specified in the order. 1997, c.24, s.224(8)

**(2) Samples.** The officer shall divide the sample taken under clause (1)(e) into two parts and deliver one part to the person from whom the sample is taken, if the person so requests at the time the sample is taken and provides the necessary facilities. 1997, c.24, s.224(8)

**(3) Same.** If an officer takes a sample under clause (1)(e) and has not divided the sample into two parts, a copy of any report on the sample shall be given to the person from whom the sample was taken. 1997, c.24, s.224(8)

**(4) Receipt.** An officer shall provide a receipt for any document or thing removed under clause (1)(b) and shall promptly return them after the copies or extracts are made. 1997, c.24, s.224(8)

**(5) Evidence.** Copies of or extracts from documents and things removed under this section and certified as being true copies of or extracts from the originals by the person who made them are admissible in evidence to the same extent as and have the same evidentiary value as the originals. 1997, c.24, s.224(8)

## Unsafe Buildings

**15.9- (1) Inspection of Unsafe Buildings.** An inspector may enter upon land and into buildings at any reasonable time without a warrant for the purpose of inspecting a building to determine,

- (a) whether the building is unsafe; or
- (b) whether an order made under subsection (4) has been complied with. 2002, c.9, s.26

**(2) Interpretation.** A building is unsafe if the building is,

- (a) structurally inadequate or faulty for the purpose for which it is used; or

- (b) in a condition that could be hazardous to the health or safety of persons in the normal use of the building, persons outside the building or persons whose access to the building has not been reasonably prevented. 2002, c.9, s.26

**(3) Sewage Systems.** In addition to the criteria set out in subsection (2), a sewage system is unsafe if it is not maintained or operated in accordance with this Act and the building code. 2002, c.9, s.26

**(4) Order.** An inspector who finds that a building is unsafe may make an order setting out the reasons why the building is unsafe and the remedial steps necessary to render the building safe and may require the order to be carried out within the time specified in the order. 2002, c.9, s.26

**(5) Service.** The order shall be served on the owner and each person apparently in possession of the building and such other persons affected thereby as the chief building official determines and a copy of the order may be posted on the site of the building. 2002, c.9, s.26

**(6) Order Respecting Occupancy.** If an order of an inspector under subsection (4) is not complied with within the time specified in it, or where no time is specified, within a reasonable time, the chief building official,

- (a) may by order prohibit the use or occupancy of the building; and
- (b) may cause the building to be renovated, repaired or demolished to remove the unsafe condition or take such other action as he or she considers necessary for the protection of the public. 2002, c.9, s.26

**(7) Power of Entry.** For the purpose of clause (6)(b), the chief building official, an inspector and their agents may enter upon land and into buildings at any reasonable time without a warrant. 2002, c.9, s.26

**(8) Service.** The order under clause (6)(a) shall be served on the owner and each person apparently in possession of the building and such other persons affected thereby as the chief building official determines and a copy of the order shall be posted on the site of the building. 2002, c.9, s.26

**(9) Timing.** The order under clause (6)(a) is effective from the time it is posted. 2002, c.9, s.26



**(10) Lien.** If the building is in a municipality, the municipality shall have a lien on the land for the amount spent on the renovation, repair, demolition or other action under clause (6)(b) and the amount shall have priority lien status as described in section 1 of the *Municipal Act, 2001* or section 3 of the *City of Toronto Act, 2006*, as the case may be. 2002, c.17, Sched. C, s.4(1); 2006, c.32, Sched. C, s.3(5)

**(11) Deemed Taxes.** If the building is in territory without municipal organization, the amount spent on the renovation, repair, demolition or other action under clause (6)(b) shall be deemed to be taxes imposed under section 3 of the *Provincial Land Tax Act* for the purposes of sections 26 and 27 of that Act. 2002, c.9, s.26

**15.10- (1) Emergency Order where Immediate Danger.**

If upon inspection of a building an inspector is satisfied that the building poses an immediate danger to the health or safety of any person, the chief building official may make an order containing particulars of the dangerous conditions and requiring remedial repairs or other work to be carried out immediately to terminate the danger. 2002, c.9, s.26

**(2) Service.** The order shall be served on the owner and each person apparently in possession of the building and such other persons affected thereby as the chief building official determines and a copy shall be posted on the site of the building. 2002, c.9, s.26

**(3) Emergency Powers.** After making an order under subsection (1), the chief building official may either before or after the order is served, take any measures necessary to terminate the danger and, for this purpose, the chief building official, an inspector and their agents may at any time enter upon the land and into the building in respect of which the order was made without a warrant. 2002, c.9, s.26

**(4) No Liability.** Despite subsection 31(2), the Crown, a municipality, an upper-tier municipality, a board of health, a planning board or a conservation authority or a person acting on behalf of any of them is not liable to compensate the owner, occupant or any other person by reason of anything done by or on behalf of the chief building official or an inspector in the reasonable exercise of his or her powers under subsection (3). 2002, c.9, s.26; 2002, c.17, Sched. C, s.5(1)

**(5) Service.** If the order was not served before measures were taken to terminate the danger, the chief building official shall serve copies of the order in accordance with subsection (2) as soon as practicable after the measures have been taken and each copy of the order shall have attached to it a statement by the chief building official describing the measures taken and providing details of the amount spent in taking the measures. 2002, c.9, s.26

**(6) Service of Statement.** If the order was served before the measures were taken, the chief building official shall serve a copy of the statement mentioned in subsection (5) in accordance with subsection (2) as soon as practicable after the measures have been taken. 2002, c.9, s.26

**(7) Application to Court.** As soon as practicable after subsections (5) and (6) have been complied with, the chief building official shall apply to the Superior Court of Justice for an order confirming the order made under subsection (1) and the court shall hold a hearing for that purpose. 2002, c.9, s.26

**(8) Powers of Court.** In disposing of an application under subsection (7), the court shall,

- (a) confirm, modify or rescind the order; and
- (b) determine whether the amount spent on measures to terminate the danger may be recovered in whole, in part or not at all. 2002, c.9, s.26

**(9) Order Final.** The disposition under subsection (8) is final. 2002, c.9, s.26

**(10) Lien.** If the building is in a municipality, the amount determined by the judge to be recoverable shall be a lien on the land and shall have priority lien status as described in section 1 of the *Municipal Act, 2001* or section 3 of the *City of Toronto Act, 2006*, as the case may be. 2002, c.17, Sched. C, s.5(2); 2006, c.32, Sched. C, s.3(6)

**(11) Deemed Taxes.** If the building is in territory without municipal organization, the amount determined by the judge to be recoverable shall be deemed to be taxes imposed under section 3 of the *Provincial Land Tax Act* for the purposes of sections 26 and 27 of that Act. 2002, c.9, s.26

## Qualifications

**15.11- (1) Qualifications for Various Positions.** A person is not eligible to be appointed as a chief building official unless he or she has the qualifications set out in the building code for the position. 2002, c.9, s.27

**(2) Same.** Subsection (1) also applies to every inspector who has the same powers and duties as a chief building official in relation to sewage systems or to plumbing, to the extent of those powers and duties. 2002, c.9, s.27

**(3) Qualifications for Inspectors.** A person is not eligible to be appointed as an inspector under this Act unless he or she has the qualifications set out in the building code for the position. 2002, c.9, s.27

**(4) Qualifications for Registered Code Agencies.** A person is not eligible to be appointed as a registered code agency under this Act unless the person has the qualifications and meets the requirements set out in the building code. 2002, c.9, s.27; 2006, c.19, Sched. O, ss.1, 2

**(5) Qualifications for Designers.** A person is not eligible to engage in any of the following activities unless he, she or it has the qualifications and meets the requirements set out in the building code to be a designer:

1. Prepare a design or give other information or opinion concerning whether a building or part of a building complies with the building code, if the design, information or opinion is to be submitted to a chief building official in connection with,
  - i. an application for a permit,
  - ii. a request for the authorization referred to in subsection 8(12) or (13), or
  - iii. a report described in paragraph 2.
2. If a general review of the construction of a building or part of a building is required by the building code, prepare a written report based on the general review. 2002, c.9, s.27; 2006, c.19, Sched. O, ss.1, 2

**(6) Same.** In subsection (5),

“design” includes a plan, specification, sketch, drawing or graphic representation respecting the construction of a building. 2002, c.9, s.27

**(7) Prohibition.** No person shall represent, directly or indirectly, that he, she or it has the qualifications or meets the requirements established under this section if the person does not have those qualifications or does not meet those requirements. 2002, c.9, s.27; 2006, c.19, Sched. O, ss.1, 2

**15.12- (1) Qualifications re Sewage Systems.** No person shall engage in the business of constructing on site, installing, repairing, servicing, cleaning or emptying sewage systems unless the person has the qualifications and meets the requirements set out in the building code. 2002, c.9, s.27; 2006, c.19, Sched. O, ss.1, 2

**(2) Prohibition.** No person shall represent, directly or indirectly, that he, she or it has the qualifications or meets the requirements referred to in subsection (1) if the person does not have those qualifications or does not meet those requirements. 2002, c.9, s.27; 2006, c.19, Sched. O, ss.1, 2

**(3) Duty to Notify the Chief Building Official.** If any part of the construction of a building will be undertaken by a person described in subsection (1) (a "specified person"), no person shall begin or continue the construction of a sewage system, or cause it to begin or continue, unless the person has given the chief building official the prescribed information about the specified person. 2002, c.9, s.27; 2006, c.19, Sched. O, ss.1, 2

**15.13- (1) Duty to have Insurance.** Every registered code agency, every person referred to in subsection 15.11(5) and such other persons as may be specified in the building code who construct buildings are required to have the insurance coverage specified by the building code. 2002, c.9, s.27; 2006, c.19, Sched. O, ss.1, 2

**(2) Exception.** Subsection (1) does not apply to a person who is a builder or vendor within the meaning of the *Ontario New Home Warranties Plan Act* in respect of the construction of a building. 2002, c.9, s.27; 2006, c.19, Sched. O, ss.1, 2

**(3) Prohibition.** No person shall represent, directly or indirectly, that he, she or it has the insurance coverage required by subsection (1) if the person does not have that insurance coverage. 2002, c.9, s.27; 2006, c.19, Sched. O, ss.1, 2

**(4) Qualification or Requirement.** If the building code so provides, the insurance coverage constitutes a qualification or requirement for the purposes of a position referred to in section 15.11. 2002, c.9, s.27

**(5) Duty to Notify the Chief Building Official.** If any part of the construction of a building will be undertaken by a person who is required by subsection (1) to have insurance (a "specified person"), no person shall begin or continue the construction, or cause it to begin or continue, unless the person has given the chief building official the prescribed information about the specified person and the insurance coverage of the specified person. 2002, c.9, s.27; 2006, c.19, Sched. O, ss.1, 2

## **Powers and Duties of Registered Code Agencies**

**15.14- (1) Notice to Chief Building Official.** Every registered code agency shall give the chief building official such information as may be prescribed by regulation. 2002, c.9, s.28

**(2) Notice to the Director.** Every registered code agency shall give the director such information as may be prescribed by regulation. 2002, c.9, s.28

**15.15- (1) Functions of Registered Code Agencies.** The following are the functions that a registered code agency may be appointed to perform in respect of the construction of a building:

1. Review designs and other materials to determine whether the proposed construction of a building complies with the building code.
2. Issue plans review certificates.
3. Issue change certificates.
4. Inspect the construction of a building for which a permit has been issued under this Act.
5. Issue final certificates.
6. Perform such other functions as may be authorized under this Act or in the building code. 2002, c.9, s.28

**15.16- (1) Scope of Agency's Powers.** A registered code agency may exercise the powers and perform the duties specified in this Act and the building code in respect only of the functions and the building specified in a particular appointment. 2002, c.9, s.28

**(2) Confidentiality.** A registered code agency shall not collect, use or disclose information except in accordance with the building code. 2002, c.9, s.28

**15.17- (1) Persons Acting on Behalf of an Agency.** A registered code agency may authorize, in writing, one or more prescribed persons to exercise powers and perform its functions under this Act, subject to such conditions as may be prescribed by regulation. 2002, c.9, s.28

**(2) Certificate of Authorization.** The registered code agency shall issue a certificate of authorization containing the prescribed information to the authorized person. 2002, c.9, s.28

**(3) Powers and Duties of Inspector.** The authorized person may exercise the powers and perform the duties of an inspector under any of the following provisions, in respect of the construction of a building for which the agency is appointed under this Act:

1. Section 12 (inspection).
2. Section 13 (order not to cover).
3. Section 16 (entry to dwellings).
4. Section 18 (powers of inspector). 2002, c.9, s.28

**15.18- (1) Duties re Certificates and Orders.** When a registered code agency makes an order under this Act, the agency shall give a copy of the order within the period prescribed by regulation to the chief building official. 2002, c.9, s.28

**(2) Certificates.** A registered code agency shall issue such certificates and use such forms as may be required by the building code and shall include in them or provide such information as may be prescribed. 2002, c.9, s.28

**(3) Same.** A certificate issued under this Act by a registered code agency must be in the prescribed form. 2002, c.9, s.28

**15.19- (1) Expiry of an Agency's Appointment.** The appointment of a registered code agency expires when the agency has performed the functions for which it was appointed in respect of construction of the specified building. 2002, c.9, s.28



**(2) Same, by Virtue of Circumstances.** The appointment of a registered code agency that has not performed all of the functions for which it is appointed in respect of the construction expires if either of the following events occurs:

1. The chief building official refuses to issue a permit for construction of the specified building.
2. The permit for construction of the building is revoked. 2002, c.9, s.28

**15.20- (1) Termination of an Agency's Appointment.**

The appointment of a registered code agency shall not be terminated except in accordance with this section and the building code. 2002, c.9, s.28

**(2) Same.** The building code may specify that the consent of the director to the termination of an appointment is required. 2002, c.9, s.28

**(3) Effect of Termination, Appointment by Principal Authority.** If the registered code agency was appointed by a principal authority, upon the termination of the appointment the principal authority becomes responsible to ensure that the remaining functions of the agency are performed by the principal authority or another registered code agency. 2002, c.9, s.28

**(4) Same, Appointment by Applicant.** If the registered code agency was appointed under section 4.2, upon the termination of the appointment the person who made the appointment becomes responsible to ensure that the remaining functions of the agency are performed by another registered code agency or, with the prior written agreement of the principal authority, by the principal authority or to ensure that work on the construction is halted. 2002, c.9, s.28

**(5) Powers of the Director.** When the appointment of a registered code agency is terminated, the director may give directions to anyone described in subsection (6) in order to facilitate the transfer of the agency's functions. 2002, c.9, s.28

**(6) Same.** Directions may be given to the person who made the appointment that has been terminated, to the registered code agency whose appointment has been terminated and to a transferee registered code agency. 2002, c.9, s.28

**(7) Duties.** The person to whom directions are given shall comply with them. 2002, c.9, s.28

**15.21- (1) Order to Suspend Construction.** The chief building official may, by order, suspend all or part of the construction of the building to which the appointment of a registered code agency relates,

- (a) if the chief building official has reason to believe that the registered code agency has ceased to perform the functions specified in the appointment; and
- (b) if the appointment of the registered code agency has not expired or been terminated. 2002, c.9, s.28

**(2) Same.** If the appointment of a registered code agency under section 4.2 is terminated, the chief building official shall, by order, suspend the construction of the applicable building until,

- (a) another registered code agency is appointed to perform the remaining functions of the original registered code agency; or
- (b) the principal authority agrees, in writing, to perform the remaining functions of the original registered code agency. 2002, c.9, s.28

**(3) Delegation.** A principal authority may delegate to the chief building official the power to agree to perform the remaining functions of a registered code agency appointed under section 4.2 whose appointment is terminated and may impose conditions and restrictions on the delegation. 2002, c.9, s.28

**(4) Effect of Order.** If an order is issued under this section, no person shall perform any act in the construction of the building in respect of which the order is made, other than work necessary to secure the safety and security of the building and of the construction site. 2002, c.9, s.28

**(5) Procedural Matters.** Subsections 14(2) and (3) apply with respect to an order under this section. 2002, c.9, s.28

**15.22 Conflict Between Appointment and Act, etc.** This Act and the building code prevail over the terms of an appointment of a registered code agency. 2002, c.9, s.28



## General Powers of Inspection and Enforcement

**15.23 Duty to Carry Identification.** The chief building official, inspectors and persons authorized by a registered code agency to exercise powers and perform functions on its behalf shall carry their certificate of appointment or authorization, as the case may be, when performing their duties and shall produce them for inspection upon request. 2002, c.9, s.29

**16.- (1) Entry to Dwellings.** Despite sections 8, 12, 15, 15.2, 15.4 and 15.9, an inspector or officer shall not enter or remain in any room or place actually being used as a dwelling unless,

- (a) the consent of the occupier is obtained, the occupier first having been informed that the right of entry may be refused and entry made only under the authority of a warrant issued under this Act;
- (a.1) a warrant issued under this Act is obtained;
- (b) the delay necessary to obtain a warrant or the consent of the occupier would result in an immediate danger to the health or safety of any person;
- (c) the entry is necessary to terminate a danger under subsection 15.7(3) or 15.10(3); or
- (d) the requirements of subsection (2) are met and the entry is necessary to remove a building or restore a site under subsection 8(6), to remove an unsafe condition under clause 15.9(6)(b) or to repair or demolish under subsection 15.4(1). 1992, c.23, s.16(1); 1997, c.24, s.224(9), (10); 2002, c.9, s.30(1), (2); 2006, c.19, Sched. O, ss.1, 2

**(2) Notice.** Within a reasonable time before entering the room or place for a purpose described in clause (1)(d), the inspector or officer shall serve the occupier with notice of his or her intention to enter it. 1992, c.23, s.16(2); 1997, c.24, s.224(11)

**17.** Repealed. 2002, c.9, s.31(2)

### **17.1- (1) Recovery of Expenditures for Repairs, etc.**

This section applies if money is spent by a board of health, planning board or conservation authority or, in the circumstances described in subsection (2), by the Crown or an upper-tier municipality or, in the circumstances described in subsection (4), by a municipality,

- (a) to carry out a removal and restoration under subsection 8(6);
- (b) to carry out a renovation, repair, demolition or other action under clause 15.9(6)(b); or

- (c) to perform remedial or other work under subsection 15.10(1) where the amount spent is determined to be recoverable by a judge under subsection 15.10(8). 1999, c.12, Sched. M, s.8; 2002, c.9, s.32(1); 2002, c.17, Sched. F, Table

**(2) In Municipalities.** If the building in respect of which money was spent is in a municipality,

- (a) the upper-tier municipality, board of health, planning board, conservation authority or the Crown may instruct the municipality to recover the amount spent;
- (b) subsection 8(7), 15.9(10) or 15.10(10), as the case may be, applies to the collection of the amount; and
- (c) the money collected, less the costs reasonably attributable to the collection, shall be paid by the municipality to the upper-tier municipality, board of health, planning board, conservation authority or the Crown. 1999, c.12, Sched. M, s.8; 2002, c.9, s.32(2); 2002, c.17, Sched. F, Table

**(3) Not Interest of the Crown.** Where the Crown instructs the municipality under clause (2)(a) to recover the amount spent, the lien referred to in subsection 8(7), 15.9(10) or 15.10(10) is not an estate or interest of the Crown within the meaning of clause 379(7)(b) of the *Municipal Act, 2001* or clause 350(7)(b) of the *City of Toronto Act, 2006*, as the case may be. 1999, c.12, Sched. M, s.8; 2002, c.9, s.32(3); 2002, c.17, Sched. F, Table; 2006, c.32, Sched. C, s.3(7)

**(4) In Territory without Municipal Organization.** If the building in respect of which money was spent is in territory without municipal organization,

- (a) the municipality, board of health, planning board or conservation authority may instruct the land tax collector appointed under the *Provincial Land Tax Act* to recover the amount spent;
- (b) subsection 8(8), 15.9(11) or 15.10(11), as the case may be, applies to the collection of the amount; and
- (c) the money collected, less the costs reasonably attributable to the collection, shall be paid by the Crown to the municipality, board of health, planning board or conservation authority. 1999, c.12, Sched. M, s.8; 2002, c.9, s.32(4)



**18.- (1) Powers of Inspector.** For the purposes of an inspection under this Act, an inspector may,

- (a) require the production for inspection of documents or things, including drawings or specifications, that may be relevant to the building or any part thereof;
- (b) inspect and remove documents or things relevant to the building or part thereof for the purpose of making copies or extracts;
- (c) require information from any person concerning a matter related to a building or part thereof;
- (d) be accompanied by a person who has special or expert knowledge in relation to a building or part thereof;
- (e) alone or in conjunction with a person possessing special or expert knowledge, make examinations or take tests, samples or photographs necessary for the purposes of the inspection; and
- (f) order any person to take and supply at that person's expense such tests and samples as are specified in the order. 1992, c.23, s.18(1); 1997, c.30, Sched. B, s.11

**(2) Samples.** The inspector shall divide the sample taken under clause (1)(c) into two parts and deliver one part to the person from whom the sample is taken, if the person so requests at the time the sample is taken and provides the necessary facilities. 1992, c.23, s.18(2)

**(3) Idem.** If an inspector takes a sample under clause (1)(c) and has not divided the sample into two parts, a copy of any report on the sample shall be given to the person from whom the sample was taken. 1992, c.23, s.18(3)

**(4) Receipt.** An inspector shall provide a receipt for any document or thing removed under clause (1)(b) and shall promptly return them after the copies or extracts are made. 1992, c.23, s.18(4)

**(5) Evidence.** Copies of or extracts from documents and things removed under this section and certified as being true copies of or extracts from the originals by the person who made them are admissible in evidence to the same extent as and have the same evidentiary value as the originals. 1992, c.23, s.8(5)

**(6) Form of Order.** The prescribed form must be used for an order under subsection (1). 2002, c.9, s.33

**18.1** Repealed. 2002, c.9, s.34

**19.- (1) Obstruction of Inspector, etc.** No person shall hinder or obstruct, or attempt to hinder or obstruct, a chief building official, inspector, officer or a person authorised by a registered code agency in the exercise of a power or the performance of a duty under this Act. 1997, c.24, s.224(13); 2002, c.9, s.35(1)

**(2) Occupied Dwellings.** A refusal of consent to enter or remain in a place actually used as a dwelling is not hindering or obstructing within the meaning of subsection (1) unless the inspector, officer or a person authorised by a registered code agency is acting under a warrant issued under this Act or the circumstances described in clauses 16(1)(b), (c) or (d). 1997, c.24, s.224(13); 2002, c.9, s.35(2)

**(3) Assistance.** Every person shall assist any entry, inspection, examination, testing or inquiry by an inspector, chief building official, officer or a person authorised by a registered code agency in the exercise of a power or performance of a duty under this Act. 1997, c.24, s.224(13); 2002, c.9, s.35(3)

**(4) Same.** No person shall neglect or refuse,

- (a) to produce any documents, drawings, specifications or things required by an officer under clause 15.8(1)(a) or (e) or under clause 18(1)(a) or (e) by an inspector or a person authorised by a registered code agency; or
- (b) to provide any information required by an officer under clause 15.8(1)(c) or under clause 18(1)(c) by an inspector or a person authorised by a registered code agency. 2002, c.9, s.35(4)

**20. Obstruction or Removal of Order.** No person shall obstruct the visibility of an order and no person shall remove a copy of any order posted under this Act unless authorized to do so by an inspector, officer or registered code agency. 1997, c.24, s.224(14); 2002, c.9, s.36

**21.- (1) Warrant for Entry and Search.** A provincial judge or justice of the peace may at any time issue a warrant in the prescribed form authorizing a person named in the warrant to enter and search a building, receptacle or place if the provincial judge or justice of the peace is satisfied by information on oath that there is reasonable ground to believe that,

- (a) an offence under this Act has been committed; and
- (b) the entry into and search of the building, receptacle or place will afford evidence relevant to the commission of the offence. 1992, c.23, s.21(1)



**(2) Seizure.** In a search warrant, the provincial judge or justice of the peace may authorize the person named in the warrant to seize anything that there is reasonable ground to believe will afford evidence relevant to the commission of the offence. 1992, c.23, s.21(2)

**(3) Same.** Anyone who seizes something under a search warrant shall,

- (a) give a receipt for the thing seized to the person from whom it was seized; and
- (b) bring the thing seized before the provincial judge or justice of the peace issuing the warrant or another provincial judge or justice to be dealt with according to law. 1992, c.23, s.21(3)

**(4) Expiry of Warrant.** A search warrant shall state the date on which it expires, which date shall be not later than fifteen days after the warrant is issued. 1992, c.23, s.21(4)

**(5) Time for Execution.** A search warrant may be executed only between 6 a.m. and 9 p.m. unless it provides otherwise. 1992, c.23, s.21(5)

**(6) Application.** Sections 159 and 160 of the *Provincial Offences Act* apply with necessary modifications in respect of any thing seized under this section. 1992, c.23, s.21(6)

## **Dispute Resolution, Reviews and Appeals**

**22.- (1) Review of Inspector's Order.** The chief building official may review and amend or rescind an order made by an inspector. 1992, c.23, s.22(1)

**(2) Powers.** A chief building official may exercise any of the powers or perform any of the duties of an inspector. 1992, c.23, s.22(2)

**23.- (1) Building Code Commission.** The Building Code Commission is continued under the name Building Code Commission in English and Commission du code du bâtiment in French and shall be composed of those persons appointed by the Lieutenant Governor in Council. 1992, c.23, s.23(1)

**(2) Chair.** The Lieutenant Governor in Council may designate one of the members as chair and one or more of the members as vice-chair. 1992, c.23, s.23(2)

**(3) Eligibility.** A person is not eligible to be a member of the Commission if the person is in the public service of Ontario, is an employee of a municipality or is in a prescribed relationship to a registered code agency. 2002, c.9, s.38

**(4) Remuneration.** The members of the Commission shall receive such remuneration and expenses as the Lieutenant Governor in Council may determine. 1992, c.23, s.23(4)

**(5) Quorum.** Three members of the Commission constitute a quorum. 1992, c.23, s.23(5)

**24.- (1) Dispute Resolution.** This section applies if there is a dispute,

- (a) between an applicant for a permit, a holder of a permit or a person to whom an order is given and the chief building official, a registered code agency or an inspector concerning the sufficiency of compliance with the technical requirements of the building code;
- (b) between an applicant for a permit and the chief building official concerning whether the official complied with subsection 8(2.2) or (2.3); or
- (c) between a holder of a permit and the chief building official, a registered code agency or an inspector concerning whether the requirements of subsection 10.2(2) have been met. 2002, c.9, s.39

**(1.1) Application for Dispute Resolution.** A party to the dispute may apply to the Building Code Commission to resolve the issue. 2002, c.9, s.39

**(2) Hearing.** The Building Code Commission shall hold a hearing to decide the dispute and shall give the parties to the dispute notice of the hearing. 2002, c.9, s.39

**(2.1) Same.** A hearing to decide a dispute described in clause (1)(b) or (c) must be held within the prescribed period. 2002, c.9, s.39



**(3) Powers.** The Building Code Commission shall, by order, determine a dispute described in clause (1)(a) and, for that purpose, may substitute its opinion for that of the chief building official, registered code agency or inspector. 2002, c.9, s.39

**(3.1) Same.** The Building Code Commission shall, by order, determine a dispute described in clause (1)(b) or (c) and, for that purpose, may require the chief building official, registered code agency or inspector, as the case may be, to comply with the applicable subsection of the Act. 2002, c.9, s.39

**(4) Decision Final.** The decision of the Building Code Commission is final. 1992, c.23, s.24(4)

**(5) Restrictions on Members.** Members of the Building Code Commission holding a hearing shall not,

- (a) take part before the hearing in any investigation or consideration of the subject-matter of the hearing; or
- (b) communicate directly or indirectly in relation to the subject-matter of the hearing with any person unless all parties are given notice and allowed to participate. 1992, c.23, s.24(5)

**(6) Independent Advice.** Despite subsection (5), members of the Building Code Commission may seek independent legal or technical advice but the nature of the advice shall be made known to the parties in order that they may make submissions. 1992, c.23, s.24(6)

**(7) Evidence.** The findings of fact at a hearing shall be based exclusively on evidence admissible or matters that may be noticed under sections 15 and 16 of the *Statutory Powers Procedure Act*. 1992, c.23, s.24(7)

**(8) Restriction.** Members of the Building Code Commission shall not participate in a decision of the Commission pursuant to a hearing unless they were present throughout the hearing. 1992, c.23, s.24(8)

**(9) Idem.** Except with the consent of the parties, no decision of the Building Code Commission shall be given unless all members present throughout the hearing participate in the decision. 1992, c.23, s.24(9)

**(10) Release of Evidence.** Documents and things put in evidence at the hearing shall, upon the request of the person who produced them, be released by the Building Code Commission to that person within a reasonable time after the matter in issue has been finally determined. 1992, c.23, s.24(10).

**25.- (1) Appeal to Court.** A person who considers themselves aggrieved by an order or decision made by the chief building official, a registered code agency or an inspector under this Act (except a decision under subsection 8(3) not to issue a conditional permit) may appeal the order or decision to the Superior Court of Justice within 20 days after the order or decision is made. 2002, c.9, s.40(2)

**(2) Extension of Time.** A judge to whom an appeal is made may, upon such conditions as the judge considers appropriate, extend the time for making the appeal before or after the time set out in subsection (1), if the judge is satisfied that there is reasonable grounds for the appeal and for applying for the extension. 1992, c.23, s.25(2)

**(3) Effect of Appeal.** If an appeal is made under this section in respect of a matter in which a question is pending before the Building Code Commission, the proceeding before the Commission is terminated. 1992, c.23, s.25(3)

**(4) Powers of Judge.** On an appeal, a judge may affirm or rescind the order or decision and take any other action that the judge considers the chief building official, registered code agency or inspector ought to take in accordance with this Act and the regulations and, for those purposes, the judge may substitute his or her opinion for that of the official, agency or inspector. 2002, c.9, s.40(3)

**(5) Reference to Commission.** A judge may refer a question respecting the interpretation of the technical requirements of the building code or the sufficiency of compliance with the technical requirements of the building code to the Building Code Commission for a hearing and report to the judge. 1992, c.23, s.25(5)

**(6) Procedure.** The procedure on the reference shall be the same as on an application under section 24. 1992, c.23, s.25(6)

**(7) Stay of Order or Decision.** An appeal under subsection (1) does not stay the operation of the order or decision appealed from but a judge may, on such terms as are just, stay the operation of the order or decision until the disposition of the appeal. 2000, c.26, Sched. K, s.1

**26.- (1) Further Appeal.** A party to the hearing before the Superior Court of Justice under section 25 may appeal from the decision to the Divisional Court. 1992, c.23, s.26(1); 2002, c.9, s.41(1)

**(2) Minister Represented.** The Minister is entitled to be heard, by counsel or otherwise, upon the argument of an appeal under this section. 1992, c.23, s.26(2)

**(3) Powers of Divisional Court.** An appeal under this section may be made on any question that is not a question of fact alone and the Divisional Court may,

- (a) confirm or alter the decision of the judge;
- (b) direct the chief building official, registered code agency or inspector to take any action that the official, agency or inspector is authorized to take under this Act;
- (c) refer the matter back to the judge for reconsideration; or
- (d) substitute its opinion for that of the chief building official, registered code agency, inspector or judge. 2002, c.9, s.41(2)

**27.- (1) Service.** A notice or order required by this Act to be served may be served personally or by registered mail sent to the last known address of the person to whom notice is to be given or to that person's agent for service. 1992, c.23, s.27(1)

**(2) Idem.** If a notice or order is served by registered mail, the service shall be deemed to have been made on the fifth day after the day of mailing unless the person to whom the notice or order is given or that person's agent for service establishes that, acting in good faith, through absence, accident, illness or other unintentional cause the notice was not received until a later date. 1992, c.23, s.27(2); 1997, c.24, s.224(15)

## Authorizations and Rulings

**28.- (1) Building Materials Evaluation Commission.** The Building Materials Evaluation Commission is continued under the name Building Materials Evaluation Commission in English and Commission d'évaluation des matériaux de construction in French and shall be composed of those persons appointed by the Lieutenant Governor in Council. 1992, c.23, s.28(1)

**(2) Chair.** The Lieutenant Governor in Council may designate one of the members as chair and one of the members as vice-chair. 1992, c.23, s.28(2)

**(3) Remuneration.** The members of the Commission shall receive such remuneration and expenses as the Lieutenant Governor in Council may determine. 1992, c.23, s.28(3)

**(4) Powers and Duties.** The Building Materials Evaluation Commission may,

- (a) conduct research on, and examine, construction materials, systems and building designs or cause such research to be conducted and examinations to be undertaken;
- (b) upon application therefor, authorize the use, subject to any conditions that may be set out, of any innovative material, system or building design in respect of the construction of buildings; and
- (c) make recommendations to the Minister respecting changes in this Act or the building code. 1992, c.23, s.28(4); 2002, c.9, s.43

**(5) Innovative Materials.** The use of any innovative material, system or building design in the manner approved by the Commission shall be deemed not to be a contravention of the building code. 1992, c.23, s.28(5)

**28.1- (1) Binding Interpretations by the Minister.** The Minister may issue a written interpretation of any provision of the building code, and the Minister's interpretation is binding on any person exercising a power or performing a duty under this Act and on any person who is subject to this Act. 2002, c.9, s.44

**(2) Public Notice.** A statement setting out the Minister's interpretation of a provision of the building code shall be made available to the public in the prescribed manner. 2002, c.9, s.44



**(3) Regulations Act.** The Minister's interpretation of a provision of the building code is not a regulation within the meaning of the *Regulations Act*. 2002, c.9, s.44

**(4) Delegation.** The Minister may delegate his or her power under subsection (1) to the director. 2002, c.9, s.44

**29.- (1) Rulings by Minister.** The Minister may, subject to such conditions as the Minister in his or her discretion considers appropriate, make rulings,

- (a) approving the use of innovative materials, systems or building designs evaluated by a materials evaluation body designated in the building code;
- (b) adopting an amendment to a code, formula, standard, guideline, protocol or procedure that has been adopted by reference in the building code; or
- (c) approving the use of alternative materials, systems and building designs which, in the opinion of the Minister, will achieve the level of performance required by the building code. 1997, c.30, Sched. B, s.14(1); 1999, c.12, Sched. M, s.9(1); 2002, c.9, s.45(1)

**(2) Delegation.** The Minister may by order delegate the power to make rulings to the director. 1992, c.23, s.29(2)

**(3) Status.** A ruling is not a regulation within the meaning of the *Regulations Act*. 1992, c.23, s.29(3)

**(4) Publication.** Notice of a ruling shall be published at least once in *The Ontario Gazette* and made available, upon request, to members of the public. 1992, c.23, s.29(4)

**(5) Application.** A ruling of the Minister under clause (1)(a) or (c) entitles a person to use the approved material, system or building design in all of Ontario unless the ruling states otherwise. 1999, c.12, Sched. M, s.9(2)

**(6) Approved Materials.** The use of an approved material, system or building design in the manner approved in a ruling under clause (1)(a) or (c) shall be deemed not to be a contravention of the building code. 1999, c.12, Sched. M, s.9(2)

**(7) Conflicts.** In the event of a conflict between an authorization of the Building Materials Evaluation Commission and a ruling of the Minister under clause (1)(a) or (c), the ruling prevails. 1992, c.23, s.29(7); 1997, c.30, Sched. B, s.14(4); 2002, c.9, s.45(2)

**(8) Restriction.** If a materials evaluation body designated in the building code has examined or has expressed its intention to examine an innovative material, system or building design, the Building Materials Evaluation Commission shall not exercise its power under subsection 28(4) in respect of that material, system or building design. 1992, c.23, s.29(8)

**30.- (1) Inquiry.** If it appears to the Minister that there is or may be a failure in construction or demolition standards or in the enforcement of this Act or the building code, the Minister may designate a person to conduct an inquiry into the failure. 1992, c.23, s.30(1)

**(2) Powers.** The person conducting the inquiry has the powers of a commission under Part II of the *Public Inquiries Act*, which Part applies to the inquiry as if it were an inquiry under that Act. 1992, c.23, s.30(2)

## General

**31.- (1) Immunity from Action.** No action or other proceeding for damages shall be instituted against the director, a member of the Building Code Commission or the Building Materials Evaluation Commission, or anyone acting under their authority, a person conducting an inquiry under section 30, a chief building official, an inspector or an officer for any act done in good faith in the execution or intended execution of any power or duty under this Act or the regulations or for any alleged neglect or default in the execution in good faith of that power or duty. 1992, c.23, s.31(1); 1997, c.24, s.224(16)

**(2) Liability.** Subsection (1) does not relieve the Crown, a municipality, an upper-tier municipality, a board of health, a planning board or a conservation authority of liability in respect of a tort committed by their respective chief building official or inspectors to which they would otherwise be subject and the Crown, municipality or upper-tier municipality, board of health, planning board or conservation authority is liable for any such tort as if subsection (1) were not enacted. 2002, c.17, Sched. F, Table



**(3) Immunity re Registered Code Agencies.** The Crown, a municipality, an upper-tier municipality, a board of health, a planning board or a conservation authority is not liable for any harm or damage resulting from any act or omission by a registered code agency or by a person authorized by a registered code agency under subsection 15.17(1) in the performance or intended performance of any function set out in section 15.15. 2002, c.9, s.47; 2002, c.17, Sched. C, s.6(1)

**(4) Same.** The Crown, a municipality, an upper-tier municipality, a board of health, a planning board or a conservation authority is not liable for any harm or damage resulting from any act or omission in the execution or intended execution of any power or duty under this Act or the regulations by their respective chief building official or inspectors if the act was done or omitted in reasonable reliance on a certificate issued or other information given under this Act by a registered code agency or by a person authorized by a registered code agency under subsection 15.17(1). 2002, c.9, s.47; 2002, c.17, Sched. C, s.6(2)

**32.** Repealed. 2002, c.9, s.48

**32.1** Repealed. 2002, c.9, s.49

**33.** Repealed. 2002, c.9, s.50

**34.- (1) Regulations.** The Lieutenant Governor in Council may make regulations governing standards for the construction and demolition of buildings, including,

1. designating structures that are to be defined as buildings under subsection 1(1);
- 1.1 prescribing the functions for which a registered code agency may be appointed under subsection 4.1(4);
- 1.2 prescribing the information that a principal authority is required to give to the director under subsection 4.1(8);
- 1.3 prescribing the persons who may appoint a registered code agency under subsection 4.2(2);
- 1.4 prescribing the manner in which the appointment of a registered code agency under section 4.2 may be made and prescribing conditions and restrictions with respect to each appointment;
- 1.5 prescribing the information that a person who appoints a registered code agency is required to give to the director under subsection 4.2(9) or to the chief building official under subsection 4.2(10);

2. prescribing the conditions under which "as constructed plans" may be required by a chief building official under clause 7(g);
- 2.1 prescribing the information about the fees and costs to be included in a report under subsection 7(4) and the manner in which the report is to be made available to the public;
- 2.2 prescribing the persons to whom notice of proposed changes in fees is to be given under subsection 7(6), the information to be included in the notice and the manner in which the notice is to be given;
- 2.3 prescribing the period within which the public meeting referred to in subsection 7(6) must be held;
- 2.4 prescribing the records to be maintained by a principal authority and the period for which the records must be retained;
3. governing the manner of construction and types and quality of materials used therein;
- 3.1 establishing objectives governing the standards for the construction and demolition of buildings;
- 3.2 prescribing the persons who may apply for a permit under section 8 and the information to be provided with an application for a permit under section 8;
- 3.3 prescribing the information that a plans review certificate must contain for the purposes of clause 8(2)(d);
- 3.4 prescribing the period within which the chief building official is required to make a decision under subsections 8(2.2) and (2.3) and the manner of determining when the period begins;
- 3.5 prescribing the information that a plans review certificate must contain under subsection 8(2.1) and a change certificate must contain under subsection 8(14);
4. setting out the applicable laws with which compliance must be achieved before a conditional permit may be issued under subsection 8(3);
5. governing the design of buildings and the use to which they may be put;
6. establishing conditions under which the use of materials, systems and building designs that are not authorized in the building code may be allowed under section 9 and circumstances in which the use of equivalent materials, systems and building designs may be made subject to conditions;
7. setting out rules and policies to be observed in the interpretation of the building code by any person exercising a power or discretion conferred under the Act or the building code;
8. determining an increase in hazard for the purposes of section 10;





9. adopting by reference, in whole or in part, with such changes as the Lieutenant Governor in Council considers necessary, any code, formula, standard, guideline, protocol or procedure and requiring compliance with any code, formula, standard, guideline, protocol or procedure that is so adopted;
10. requiring any part of the design, construction or demolition of a building to be under the general review of an architect as defined in the *Architects Act* or a professional engineer as defined in the *Professional Engineers Act* and that copies of reports arising from the general review be provided to the chief building official or a registered code agency;
11. designating organizations to test prefabricated building units to the standards prescribed by the building code and providing for the placing of their label on units that conform to the standards;
12. requiring the approval of an inspector or a registered code agency in respect of any method, matter or thing;
13. requiring the posting on buildings or sites of construction or demolition of such documents or information as is prescribed;
14. requiring such documents, information, records, drawings or specifications as are prescribed to be kept on the site of construction or demolition;
- 14.1 prescribing the records to be kept by any person and the returns of information and reports to be made by any person and providing for the inspection and examination of the records;
15. requiring notice to be given to the chief building official, an inspector or a registered code agency respecting any matter in the course of construction, including notice of readiness for inspection at the stages of construction of a building, and specifying the person required to give the notices;
- 15.1 prescribing the type and manner of inspections for the purposes of subsection 10.2(2) (readiness for inspection) and prescribing the period within which the inspections must be carried out;
- 15.2 prescribing the information that must be given to the chief building official about a person who is required by subsection 15.12(3) to have certain qualifications or to meet certain requirements or both;
- 15.3 prescribing the information that must be given to the chief building official under subsection 15.13(5) about any person required to have insurance coverage and about the coverage;
- 15.4 prescribing the manner in which a referral to the chief building official under subsection 14(5) must be made;
16. requiring notice to be given to the chief building official respecting the change in prescribed classes of use made of a building;

17. requiring the chief building official to transmit to the director such returns or reports as are prescribed;
18. prescribing conditions under which a building or any part of a building may be occupied, including requiring notice to be given to a chief building official or registered code agency and requiring permission to be received from the official or agency before the building or part may be occupied;
19. exempting any building or person or class thereof from compliance with all or any part of this Act and the regulations and prescribing conditions for the exemption;
20. prescribing the form of a warrant and the form in which the information upon oath will be taken under section 21;
21. requiring the alteration of any part of an existing building where construction in relation to the building affects that part;
22. requiring the payment of fees in respect of applications to the Building Materials Evaluation Commission and prescribing the amounts thereof;
- 22.1 prescribing the manner in which the Minister's written interpretations under section 28.1 are to be made available to the public;
23. designating materials evaluation bodies for the purposes of section 29;
24. establishing criteria to be followed by the Minister in respect of a ruling under section 29;
25. prescribing procedures of the Building Code Commission and the Building Materials Evaluation Commission;
26. prescribing the persons to whom notice shall be given of the issuance of a permit, the time for giving the notice and the class of buildings for which notice is required;
27. defining, for the purposes of this Act and the building code, any word or expression not defined in this Act, and in so doing may define a word or expression differently for different provisions;
28. prescribing forms and providing for their use or requiring that forms provided by the Minister or the director be used, and prescribing the information that must be contained in the forms;
29. prescribing boards of health, planning boards and conservation authorities that are responsible for the enforcement of the provisions of this Act related to sewage systems and the municipalities and territory without municipal organization in which they will have jurisdiction to carry out the enforcement;

30. permitting chief building officials or registered code agencies, subject to such conditions as are set out in the building code, to allow the use of materials, systems and building designs other than those prescribed in the building code with respect to the construction of buildings;
31. governing the location of sewage systems;
32. designating areas in which any class of sewage system may not be established;
33. prescribing qualifications for chief building officials, inspectors, registered code agencies, designers and other persons referred to in section 15.12 and related matters including,
  - i. requiring different qualifications for different classes of officials, inspectors, agencies, designers and other persons,
  - ii. requiring assessments or examinations in connection with obtaining or maintaining the required qualifications,
  - iii. establishing one or more registers identifying persons with qualifications and such other information as the regulation may require, and
  - iv. requiring fees to be paid in connection with the qualifications;
34. establishing certification, registration or licensing schemes for chief building officials, inspectors, registered code agencies, designers and other persons referred to in sections 15.11 (qualifications) and 15.12 (qualifications re sewage systems) which may include provision for,
  - i. the eligibility or ineligibility of classes of persons to obtain certification, registration or a licence,
  - ii. categories or classes of certification, registration or licence,
  - iii. application for the issuance, amendment or renewal of a certificate, registration or a licence,
  - iv. the issuance, amendment or renewal of a certificate, registration or a licence or the refusal to do so,
  - v. suspension, revocation or cancellation of a certificate, registration or a licence,
  - vi. the imposition of conditions relating to a certificate, registration or licence, including conditions relating to the qualifications of directors, officers, partners, employees and others associated with the holder of the certificate, registration or licence, conditions relating to the manner in which specified persons carry out activities under this Act and the building code and conditions relating to insurance coverage, including the kinds and amounts of insurance and the circumstances in which a person will be considered to be covered by insurance,

- vii. the establishment and maintenance of one or more registers containing information about the holders of certificates, registrations or licences and containing such information as may be given to the director under paragraph 35.1, and
  - viii. fees payable in connection with certification, registration or licensing;
35. prescribing an appeal to a prescribed tribunal from a refusal to issue or renew a certificate, registration or licence or a suspension, revocation or cancellation of a certificate, registration or licence, prescribing the circumstances in which the decision appealed from takes effect immediately despite the appeal, and prescribing the circumstances in which the tribunal may stay the decision pending the outcome of the appeal;
- 35.1 requiring the Ontario Association of Architects and the Association of Professional Engineers of Ontario to give the prescribed information to the director;
- 35.2 prescribing fees payable to the Crown by the Ontario Association of Architects and the Association of Professional Engineers of Ontario in connection with the registers referred to in paragraphs 33 and 34 and in respect of the development of training materials for a purpose described in paragraph 33 or 34;
- 35.3 prescribing the persons who are required under subsection 15.13(1) to have insurance coverage and prescribing the kinds and amounts of insurance that are required and the circumstances in which the person will be considered to be covered by insurance;
- 35.4 prescribing additional functions that registered code agencies may perform;
- 35.5 prescribing the manner in which registered code agencies and persons authorized by them under subsection 15.17(1) are required to perform any of their functions;
- 35.6 prescribing the manner in which a registered code agency is authorized to collect, use and disclose information;)
- 35.7 prescribing circumstances in which a registered code agency may be appointed in respect of a building even though an inspector or another registered code agency has already carried out a function described in section 15.15;
- 35.8 prescribing circumstances in which a registered code agency cannot be appointed, including circumstances that would constitute a conflict of interest for a registered code agency;
- 35.9 prescribing the information that a registered code agency is required to give to the director or to the chief building official;



- 35.10 prescribing the classes of persons that may be authorized by a registered code agency under subsection 15.17(1), the conditions to which the authorization may be subject and the information that must be included in a certificate of authorization;
- 35.11 prescribing certificates and the form of certificates referred to in subsection 15.18(2), the information that the certificates are required to contain and the circumstances and manner in which registered code agencies are permitted to issue them;
- 35.12 prescribing the circumstances in which the appointment of a registered code agency may be terminated and the conditions that must be met before the termination of an appointment, including,
  - i. requiring the consent of the director and authorizing the director to impose conditions and restrictions in connection with the consent, and
  - ii. authorizing an appeal to a person specified in the regulations from a decision of the director or conditions imposed by the director;
- 36. designating persons, specifying powers of a chief building official or inspector that those designated persons may exercise to enforce this Act and the building code in relation to the qualifications of persons described in sections 15.11 and 15.12 and the requirement in section 15.13 for insurance coverage, and establishing conditions for the exercise of the specified powers;
- 37. prescribing transitional matters necessary for the regulation of sewage systems, including matters relating to,
  - i. licensing and certification and the qualification of inspectors and persons described in subsection 15.12(1);
  - ii. certificates of approval and orders issued under the *Environmental Protection Act*,
  - iii. enforcement issues,
  - iv. matters commenced under the *Environmental Protection Act*, including appeals,
  - v. records and documents to be kept or transferred and the payment of associated costs,
  - vi. certification of records and their use in courts,
  - vii. the continuation of matters commenced under the *Environmental Protection Act*, and
  - viii. the transfer of responsibilities involving any municipality or any board of health, conservation authority or planning board prescribed under section 3.1.
- 38. permitting the Building Code Commission to sit in one or more divisions simultaneously upon such conditions as may be prescribed in the regulation;

39. authorizing one member of the Building Code Commission, with the approval of the chair or vice-chair, to hear and determine any matter and deeming the member to constitute the commission for that purpose, under such conditions as may be prescribed in the regulation;
- 39.1 prescribing relationships for the purposes of subsection 23(3) (eligibility to be a member of the Commission);
- 39.2 prescribing the period within which the Building Code Commission must hold a hearing in respect of a dispute described in clause 24(1)(b) or (c);
- 39.3 providing for transitional provisions relating to the effect of a repeal or re-enactment of any provision of this Act;
40. prescribing any matter referred to in this Act as prescribed. 1992, c.23, s.34(1); 1997, c.30, Sched. B, s.17(1)-(4); 1999, c.12, Sched. M, s.11; 2002, c.9, s.51(1),(2),(4)-(14); 2006, c.19, Sched. O, ss.1, 2

**(2) Standards for Existing Buildings.** The Lieutenant Governor in Council may make regulations to establish standards that existing buildings must meet even though no construction is proposed, including regulations,

- (a) prescribing any or all of the matters set out in subsection (1) as applicable to existing buildings;
- (b) establishing standards for maintenance, operation, occupancy and repair;
- (c) prescribing standards related to resource conservation and environmental protection;
- (d) prescribing standards, methods and equipment for the inspection, cleaning, disinfecting and emptying of sewage systems. 1992, c.23, s.34(2); 1997, c.30, Sched. B, s.17(5)

**(3) Application.** A regulation made under this section applies to buildings whether erected before or after the coming into force of this Act. 1992, c.23, s.34(3)

**(4) Limited Application.** Any regulation made under this section may be limited in its application territorially or to any class of activity, matter, person or thing. 1997, c.30, Sched. B, s.17(6)

**(4.1) Same.** A class under this Act may be defined with respect to any attribute, quality or characteristic and may be defined to consist of, include or exclude any specified member whether or not with the same attributes, qualities or characteristics. 1997, c.30, Sched. B, s.17(6)



**(4.2) Retroactive.** A regulation made under paragraph 37 of subsection (1) may be retroactive. 1997, c.30, Sched. B, s.17(6).

**(5) Purposes.** The purposes of the regulations made under this section are,

- (a) to establish standards for public health and safety, fire protection, structural sufficiency, conservation and environmental integrity, and to establish barrier-free requirements, with respect to buildings; and
- (b) to establish processes for the enforcement of the standards and requirements. 2002, c.9, s.51(15)

**35.- (1) Municipal By-laws.** This Act and the building code supersede all municipal by-laws respecting the construction or demolition of buildings. 1992, c.23, s.35(1)

**(2) Different Treatments.** In the event that this Act or the building code and a municipal by-law treat the same subject-matter in different ways in respect to standards for the use of a building described in section 10 or standards for the maintenance or operation of a sewage system, this Act or the building code prevails and the by-law is inoperative to the extent that it differs from this Act or the building code. 1992, c.23, s.35(2); 1997, c.30, Sched. B, s.18(1)

**(3) Interpretation.** For the purposes of this section, a municipal by-law includes a by-law of an upper-tier municipality and a local board as defined in the *Municipal Affairs Act*. 2002, c.17, Sched. F, Table

**35.1 Status of Conservation Authority Regulations.** A regulation made by a conservation authority under this Act is not a regulation within the meaning of the *Regulations Act*. 2002, c.9, s.52

**36.- (1) Offences.** A person is guilty of an offence if the person,

- (a) knowingly furnishes false information in any application under this Act, in any certificate required to be issued or in any statement or return required to be furnished under this Act or the regulations;
- (b) fails to comply with an order, direction or other requirement made under this Act; or
- (c) contravenes this Act, the regulations, a by-law passed under section 7 or a condition imposed under section 9. 1992, c.23, s.36(1); 1997, c.30, Sched. B, s.19; 2002, c.9, s.53(1)

**(2) Idem.** Every director or officer of a corporation who knowingly concurs in the furnishing of false information, the failure to comply or the contravention under subsection (1) is guilty of an offence. 1992, c.23, s.36(2)

**(3) Penalties.** A person who is convicted of an offence is liable to a fine of not more than \$50,000 for a first offence and to a fine of not more than \$100,000 for a subsequent offence. 2005, c.33, s.1.

**(4) Corporations.** If a corporation is convicted of an offence, the maximum penalty that may be imposed upon the corporation is \$100,000 for a first offence and \$200,000 for a subsequent offence and not as provided in subsection (3). 2005, c.33, s.1.

**(5) Subsequent Offence.** For the purposes of subsections (3) and (4), an offence is a subsequent offence if there has been a previous conviction under this Act. 1992, c.23, s.36(5)

**(6) Continuing Offence.** Every person who fails to comply with an order made by a chief building official under subsection 14(1) or clause 15.9(6)(a) is guilty of an offence and on conviction, in addition to the penalties mentioned in subsections (3) and (4), is liable to a fine of not more than \$10,000 per day for every day the offence continues after the time given for complying with the order has expired. 1992, c.23, s.36(6); 2002, c.9, s.53(2)

**(7) Power to Restrain.** If this Act or the regulations are contravened and a conviction is entered, in addition to any other remedy and to any penalty imposed by this Act, the court in which the conviction is entered, and any court of competent jurisdiction thereafter, may make an order prohibiting the continuation or repetition of the offence by the person convicted. 1992, c.23, s.36(7)

**(8) Limitation Period.** No proceeding under this section shall be commenced more than one year after the time when the subject-matter of the proceeding arose. 1992, c.23, s.36(8)

**(9) Proceeds of Fines.** If an offence under this section has been committed within a municipality, the proceeds of a fine imposed under this section shall be paid to the treasurer of that municipality, and section 2 of the *Administration of Justice Act* and section 4 of the *Fines and Forfeitures Act* do not apply in respect of the fine. 1992, c.23, s.36(9)





**(10) Same, Sewage System Offences.** Despite subsection (9), if an offence under this section concerns the provisions of this Act and the building code related to sewage systems and if it is committed in a municipality or territory without municipal organization that is prescribed under subsection 3.1(1), the proceeds of a fine imposed under this section shall be paid to the applicable board of health, planning board or conservation authority prescribed under subsection 3.1(1), and section 2 of the *Administration of Justice Act* and section 4 of the *Fines and Forfeitures Act* do not apply in respect of the fine. 2002, c.9, s.53(3)

**37.- (1) Proof of Directions, Orders, etc.** In any prosecution for an offence under this Act, a copy of a direction or order purporting to have been made under this Act or the regulations and purporting to have been signed by the person authorized by this Act to make the direction or order is, in the absence of evidence to the contrary, proof of the direction or order without proof of the signature or authority. 1992, c.23, s.37(1)

**(2) Same.** A statement as to any matter of record in an office of the chief building official or an officer purporting to be certified by the chief building official or an officer is, without proof of the office or signature of the chief building official or officer, receivable in evidence as proof, in the absence of evidence to the contrary, of the facts stated therein in any civil proceeding or proceeding under the *Provincial Offences Act*. 1997, c.24, s.224(18)

**38.- (1) Restraining Order.** Where it appears to a chief building official that a person does not comply with this Act, the regulations or an order made under this Act, despite the imposition of any penalty in respect of the non-compliance and in addition to any other rights he or she may have, the chief building official may apply to the Superior Court of Justice for an order directing that person to comply with the provision. 1992, c.23, s.38(1); 2002, c.9, s.54

**(2) Idem.** Upon the application under subsection (1), the judge may make the order or such other order as the judge thinks fit. 1992, c.23, s.38(2)

**(3) Appeal.** An appeal lies to the Divisional Court from an order made under subsection (1). 1992, c.23, s.38(3)

**38.1- (1) Suspension of Licence.** If a person is in default of payment of a fine imposed upon conviction for an offence under this Act or the regulations, on the application of a prescribed person, an order may be made under subsection 69(2) of the *Provincial Offence Act* directing that one or more of the licences of the person who is in default be suspended and no licence be issued to that person until the fine is paid. 1997, c.30, Sched. B, s.20

**(2) Duty of Prescribed Person.** A prescribed person shall,

- (a) on being informed of an order referred to in subsection (1), suspend the licence in accordance with the order; and
- (b) on being informed that the fine and any applicable prescribed administrative fee for the reinstatement of the licence are paid, reinstate the licence. 1997, c.30, Sched. B, s.20

**(3) No Reinstatement.** The prescribed person shall not reinstate a licence under clause (2)(b) if the prescribed person is informed that,

- (a) there is another outstanding order referred to in subsection (1) directing that the licence be suspended; or
- (b) the licence is suspended under any other order or under another statute. 1997, c.30, Sched. B, s.20

**(4) Definition.** In this section,

"licence" means a licence, certification, or registration issued under the building code. 2002, c.9, s.55

## **BUILDING CODE**

### **Division A**

### **Compliance, Objectives and Functional Statements**

#### **Part 1**

#### **Compliance and General**

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## **Part 1**

### **Compliance and General**

#### **Section 1.1. Organization and Application**

##### **1.1.1. Organization of this Code**

###### **1.1.1.1. Scope of Division A**

(1) Division A contains compliance and application provisions and the *objectives* and *functional statements* of this Code.

###### **1.1.1.2. Scope of Division B**

(1) Division B contains the *acceptable solutions* of this Code.

###### **1.1.1.3. Scope of Division C**

(1) Division C contains the administrative provisions of this Code.

###### **1.1.1.4. Internal Cross-references**

(1) If a provision of this Code contains a reference to another provision of this Code but no Division is specified, both provisions are in the same Division of this Code.

##### **1.1.2. Application of Division B**

###### **1.1.2.1. Application of Parts 1, 7 and 12**

(1) Parts 1, 7 and 12 of Division B apply to all *buildings*.

###### **1.1.2.2. Application of Parts 3, 4, 5 and 6**

(1) Subject to Articles 1.1.2.6. and 1.3.1.2., Parts 3, 5 and 6 of Division B apply to all *buildings*.

(a) used for *major occupancies* classified as,

- (i) Group A, *assembly occupancies*,
- (ii) Group B, *care or detention occupancies*,
- (iii) Group F, Division 1, *high hazard industrial occupancies*, or

(b) exceeding 600 m<sup>2</sup> in *building area* or exceeding three *storeys* in *building height* and used for *major occupancies* classified as,

- (i) Group C, *residential occupancies*,
- (ii) Group D, *business and personal services occupancies*,
- (iii) Group E, *mercantile occupancies*, or
- (iv) Group F, Divisions 2 and 3, *medium and low hazard industrial occupancies*.

(2) Subject to Articles 1.1.2.6. and 1.3.1.2., Part 4 of Division B applies to,

- (a) *post-disaster buildings*,
- (b) *buildings* described in Sentence (1), and
- (c) structures designated in Sentence 1.3.1.1.(1).

(3) Section 3.11. of Division B applies to *public pools*.

(4) Section 3.12. of Division B applies to *public spas*.

(5) Section 3.15. of Division B applies to signs.

### 1.1.2.3. Application of Part 8

(1) Part 8 of Division B applies to the *construction*, operation and maintenance of all *sewage systems* and to the *construction* of *buildings* in the vicinity of *sewage systems*.

### 1.1.2.4. Application of Part 9

(1) Subject to Articles 1.1.2.6. and 1.3.1.2., Part 9 of Division B applies to all *buildings*,

- (a) of three or fewer *storeys* in *building height*,
- (b) having a *building area* not exceeding 600 m<sup>2</sup>, and
- (c) used for *major occupancies* classified as,
  - (i) Group C, *residential occupancies*,
  - (ii) Group D, *business and personal services occupancies*,
  - (iii) Group E, *mercantile occupancies*, or
  - (iv) Group F, Divisions 2 and 3, *medium hazard industrial occupancies* and *low hazard industrial occupancies*.

### 1.1.2.5. Application of Part 10

(1) Part 10 of Division B applies to existing *buildings* requiring a permit under section 10 of the Act.



### 1.1.2.6. Application of Part 11

- (1) Except as provided in Sentence (2), Part 11 of Division B applies to the design and *construction* of existing *buildings*, or parts of existing *buildings*, that have been in existence for at least five years.
- (2) If a *building* has been in existence for at least five years but includes an addition that has been in existence for less than five years, Part 11 of Division B applies to the entire *building*.

### 1.1.2.7. Existing Buildings

- r<sub>1</sub>
- (1) Except as provided in Section 3.17. of Division B, Section 9.40. of Division B and Part 11 of Division B, if an existing *building* is extended or is subject to material alteration or repair, this Code applies only to the design and *construction* of the extensions and those parts of the *building* that are subject to the material alteration or repair.
  - (2) If an existing previously occupied *building* is moved from its original location to be installed elsewhere, or is dismantled at its original location and moved to be reconstituted elsewhere, this Code applies only to changes to the design and *construction* of the *building* required as a result of moving the *building*.

### 1.1.3. Building Size Determination

#### 1.1.3.1. Building Size Determination of Building Divided by Firewalls

- (1) Where a *firewall* divides a *building*, each portion of the *building* that is divided shall be considered as a separate *building*, except for the purposes of,
  - (a) a determination of *gross area* in Section 2.2. of Division C,
  - (b) a fire alarm and detection system in Sentence 3.2.4.2.(1) of Division B or Article 9.10.18.1. of Division B, and
  - (c) a *plumbing system* interconnected through a *firewall*.

#### 1.1.3.2. Building Size Determination of Building Divided by Vertical Fire Separations

- (1) Except as permitted in Sentence (2), if portions of a *building* are completely separated by a vertical *fire separation* that has a *fire-*

resistance rating of at least 1 h and that extends through all *storeys* and *service spaces* of the separate portions, each separated portion may be considered to be a separate *building* for the purpose of determining *building height* if,

- (a) each separated portion is not more than three *storeys* in *building height* and is used only for *residential occupancies*, and
- (b) the unobstructed path of travel for a fire fighter from the nearest *street* to one entrance to each separated portion is not more than 45 m.

(2) The vertical *fire separation* in Sentence (1) may terminate at the floor assembly immediately above a *basement* if the *basement* conforms to Article 3.2.1.2. of Division B.

## **Section 1.2. Compliance**

### **1.2.1. Compliance with Division B**

#### **1.2.1.1. Compliance with Division B**

- (1) Compliance with Division B shall be achieved,
  - (a) by complying with the applicable *acceptable solutions* in Division B, or
  - (b) by using *alternative solutions* that will achieve the level of performance required by the applicable *acceptable solutions* in respect of the *objectives* and *functional statements* attributed to the applicable *acceptable solutions* in Supplementary Standard SA-1.
- (2) For the purposes of Clause (1)(b), the level of performance in respect of a *functional statement* refers to the performance of the *functional statement* as it relates to the *objective* with which it is associated in Supplementary Standard SA-1.

### **1.2.2. Materials, Appliances, Systems and Equipment**

#### **1.2.2.1. Characteristics of Materials, Appliances, Systems and Equipment**

- (1) All materials, *appliances*, systems and equipment installed to meet the requirements of this Code shall possess the necessary characteristics to perform their intended functions when installed in a *building*.



### 1.2.2.2. Used Materials, Appliances and Equipment

- (1) Unless otherwise specified, recycled materials in *building* products may be used and used materials, *appliances* and equipment may be reused when they meet the requirements of this Code for new materials and are satisfactory for their intended use.

## Section 1.3. Interpretation

### 1.3.1. Interpretation

#### 1.3.1.2. Farm Buildings

- (1) Except as provided in Sentences (2) to (5), *farm buildings* shall conform to the requirements in the CCBFC, "National Farm Building Code of Canada".
- (2) Articles 1.1.1.2. and 3.1.8.1. and Subsections 3.1.4. and 4.1.4. in the CCBFC, "National Farm Building Code of Canada" do not apply to *farm buildings*.
- (3) In the CCBFC, "National Farm Building Code of Canada", references in Articles 1.1.1.3., 2.2.2.1., 2.2.2.2., 2.3.1.1., 2.3.2.1., 3.1.1.1., 3.1.1.2., 3.1.2.1. and 3.1.6.1. to the CCBFC, "National Building Code of Canada" are deemed to be references to Ontario Regulation 403/97 (Building Code), made under the Act, as that regulation read immediately before it was revoked.
- (4) A *farm building* of low human occupancy having a *building area* not exceeding 600 m<sup>2</sup> and not more than three *storeys* in *building height* is deemed to comply with the structural requirements of the CCBFC, "National Farm Building Code of Canada" if it is designed and constructed in conformance with Supplementary Standard SB-11.
- (5) A manure storage tank shall comply with the requirements of Subsection 4.4.5. of Division B.

## Section 1.4. Terms and Abbreviations

### 1.4.1. Definitions of Words and Phrases

#### 1.4.1.1. Non-defined Terms

(1) Definitions of words and phrases used in this Code that are not included in the list of definitions in Articles 1.4.1.2. and 1.4.1.3. and are not defined in another provision of this Code shall have the meanings that are commonly assigned to them in the context in which they are used, taking into account the specialized use of terms by the various trades and professions to which the terminology applies.

#### 1.4.1.2. Defined Terms

- (1) Each of the words and terms in italics in this Code has,
- (a) the same meaning as in subsection 1(1) of the Act, if not defined in clause (b), or
  - (b) the following meaning for the purposes of this Code and, where indicated, for the purposes of the Act:

*Absorption trench* means an excavation in *soil*, as defined in Part 8 of Division B, or in *leaching bed fill*, being part of a *leaching bed*, in which a *distribution pipe* is laid that allows infiltration of the *effluent* into the *soil*, as defined in Part 8 of Division B, or *leaching bed fill*.

*Acceptable solution* means a requirement stated in Parts 3 to 12 of Division B.

*Alternative solution* means a substitute for an *acceptable solution*.

*Architect* means, for the purposes of the Act and this Code, the holder of a licence, a certificate of practice or a temporary licence under the *Architects Act*.

*As constructed plans* means, for the purposes of the Act and this Code, *construction* plans and specifications that show the *building* and the location of the *building* on the property as the *building* has been constructed.

*Assembly occupancy* means the *occupancy* or the use of a *building* or part of a *building* by a gathering of persons for civic, political, travel, religious, social, educational, recreational or similar purposes or for the consumption of food or drink.



*Basement* means one or more storeys of a building located below the first storey.

*Building area* means the greatest horizontal area of a building above grade,

- (a) within the outside surface of exterior walls, or
- (b) within the outside surface of exterior walls and the centre line of firewalls.

*Building Code website* means the website at [www.obc.mah.gov.on.ca](http://www.obc.mah.gov.on.ca).

*Building height* means the number of storeys contained between the roof and the floor of the first storey.

*Business and personal services occupancy* means the occupancy or use of a building or part of a building for the transaction of business or the provision of professional or personal services.

*Care and treatment occupancy* (Group B, Division 2) means an occupancy in which persons receive special care and treatment.

*Care occupancy* (Group B, Division 3) means an occupancy in which persons receive special or supervisory care because of cognitive or physical limitations, but does not include a dwelling unit.

*Care or detention occupancy* means the occupancy or use of a building or part of a building by persons who,

- (a) are dependent on others to release security devices to permit egress,
- (b) receive special care and treatment, or
- (c) receive supervisory care.

*Certificate for the occupancy of a building not fully completed* means a certificate described in Sentence 4.7.4.3.(5) of Division C.

*Chamber* means a structure that is constructed with an open bottom and that contains a pressurized distribution pipe.

*Compliance alternative* means a substitute for a requirement in another Part of Division B that is listed in Part 10 or 11 of Division B, and "C.A." has a corresponding meaning.

*Construction index* means a level on a scale of 1 to 8 determined in accordance with Table 11.2.1.1.A. of Division B designating the expected performance level of the building structure with respect to the type of construction and fire protection of an existing building, and "C.I." has a corresponding meaning.

*Design activities* means the activities described in subsection 15.11 (5) of the Act.

*Design capacity* means, in the definition of sewage system, the total daily design sanitary sewage flow determined in accordance with Article 8.2.1.3. of Division B.

*Designer* means the person responsible for the design.

*Detention occupancy* (Group B, Division 1) means an occupancy in which persons are under restraint or are incapable of self preservation because of security measures not under their control.

*Distribution box* means a device for ensuring that effluent from a treatment unit is distributed in equal amounts to each line of distribution pipe in a leaching bed.

*Distribution pipe* means a line or lines of perforated or open jointed pipe or tile installed in a leaching bed for the purpose of distributing effluent from a treatment unit to the soil, as defined in Part 8 of Division B, or leaching bed fill in the leaching bed.

*Drainage system* means an assembly of pipes, fittings, fixtures and appurtenances on a property that is used to convey sewage and clear water waste to a main sewer or a private sewage disposal system, and includes a private sewer, but does not include subsoil drainage piping. (See sanitary drainage system and storm drainage system)

*Dwelling unit* means a suite operated as a housekeeping unit, used or intended to be used as a domicile by one or more persons and usually containing cooking, eating, living, sleeping and sanitary facilities.

*Earth pit privy* means a latrine consisting of an excavation in the ground surmounted by a superstructure.

*Effluent* means sanitary sewage that has passed through a treatment unit.



*Farm building* means all or part of a *building*,

- (a) that does not contain any area used for *residential occupancy*,
- (b) that is associated with and located on land devoted to the practice of farming, and
- (c) that is used essentially for the housing of equipment or livestock or the production, storage or processing of agricultural and horticultural produce or feeds.

*Fire-resistance rating* means the time in minutes or hours that a material or assembly of materials will withstand the passage of flame and the transmission of heat when exposed to fire under specified conditions of test and performance criteria, or as determined by extension or interpretation of information derived from that test and performance as prescribed in this Code.

*Fire separation* means a construction assembly that acts as a barrier against the spread of fire.

*Firewall* means a type of *fire separation* of *noncombustible construction* that subdivides a *building* or separates adjoining *buildings* to resist the spread of fire and that has a *fire-resistance rating* as prescribed in this Code and the structural stability to remain intact under fire conditions for the required fire-rated time.

*First storey* means the *storey* that has its floor closest to *grade* and its ceiling more than 1.8 m above *grade*.

*Fixture unit* means, when applied to a *drainage system*, the unit of measure based on the rate of discharge, time of operation and frequency of use of a *fixture* that expresses the hydraulic load that is imposed by that *fixture* on the *drainage system*.

*Fixture unit* means, when applied to a *water distribution system*, the unit of measure based on the rate of supply, time of operation and frequency of use of a *fixture* or outlet that expresses the hydraulic load that is imposed by that *fixture* or outlet on the supply system.

*Floor area* means the space on any *storey* of a *building* between exterior walls and required *firewalls*, including the space occupied by interior walls and *partitions*, but not including *exits*, *vertical service spaces* and their enclosing assemblies.

*Functional statement* means a function set out in Table 3.2.1.1, that a *building* or an element of a *building* is intended to perform.

*Greywater* means *sanitary sewage* of domestic origin that is derived from fixtures other than *sanitary units*.

*Gross area* means the total area of all floors above grade measured between the outside surfaces of exterior walls or between the outside surfaces of exterior walls and the centre line of *firewalls*, except that, in any other occupancy than a *residential occupancy*, where an access or a *building* service penetrates a *firewall*, measurements shall not be taken to the centre line of such *firewall*.

*Ground water* means, when applied to a *sewage system*, water below the surface of the ground that occupies a zone of the earth's mantle that is saturated with water.

*Ground water table* means, when applied to a *sewage system*, the elevation of the upper surface of the *ground water* existing in the area of the *sewage system*.

*Groundwater* means a free standing body of water in the ground.

*Groundwater level* means the top surface of *groundwater*.

*Hauled sewage* means *sanitary sewage* that,

- (a) is not finally disposed of at the site where it is produced and is not conveyed by a sewer to *sewage works*, and
- (b) is stored or retained at the site where it is produced for periodic collection, handling, treatment, transportation, storage or processing prior to final disposal at a place other than where it was produced,

and includes *sanitary sewage* that is removed from a *sewage system* for the purpose of cleaning or maintaining the system.

*Hauled sewage system* means works, installations, equipment, operations and land used in connection with the collection, handling, treatment, transportation, storage, processing and disposal of *hauled sewage*, as regulated under the *Environmental Protection Act*.

*Hazard index* means a level on a scale of 1 to 8 determined in accordance with Tables 11.2.1.1.B. to 11.2.1.1.N. of Division B, designating the life safety hazard to occupants of a *building* based on,

- (a) use and occupancy,
- (b) occupant load,
- (c) the use and function of floor spaces,

- (d) the difficulty of egress,
- (e) the fire load of contents, finishes and furnishings,
- (f) the configuration or compartmentation of floor spaces, and
- (g) the size of the *building*,

and "H.I." has a corresponding meaning.

*Header line* means a line of pipe with watertight joints installed in a *sewage system* for the purpose of distributing *effluent* from a *treatment unit* to the *distribution pipe* in a *leaching bed*.

*Heritage building* means a *building*,

- (a) that is designated under the *Ontario Heritage Act*, or
- (b) that is certified to be of significant architectural or historical value by a recognized, non-profit public organization whose primary object is the preservation of structures of architectural or historical significance and the certification has been accepted by the *chief building official*.

*High ground water table* means the highest elevation at which there is physical evidence that the *soil*, as defined in Part 8 of Division B, or the *leaching bed fill* has been saturated with water.

*High hazard industrial occupancy* (Group F, Division 1) means an *industrial occupancy* containing sufficient quantities of highly *combustible* and flammable or explosive materials to constitute a special fire hazard because of their inherent characteristics.

*Holding tank* means a tank designed to totally retain all *sanitary sewage* discharged into it and requiring periodic emptying.

*Industrial occupancy* means the *occupancy* or use of a *building* or part of a *building* for the assembling, fabricating, manufacturing, processing, repairing or storing of goods or materials.

*Interceptor* means a receptacle that is designed and installed to prevent oil, grease, sand or other materials from passing into a *drainage system*.

*Leaching* means dispersal of liquid by downward or lateral drainage or both into permeable *soil*, as defined in Part 8 of Division B, or *leaching bed fill*.

*Leaching bed* means an absorption system constructed as *absorption trenches* or as a filter bed, located wholly in ground or raised or partly raised above ground, as required by local conditions, to which *effluent* from a *treatment unit* is applied for treatment and disposal and that is composed of,

- (a) the *soil*, as defined in Part 8 of Division B, *leaching bed fill* or other filter media that is contained between the surface on which the *sanitary sewage* is applied and the bottom of the bed,
- (b) the *distribution pipe* and the stone or gravel layer in which the *distribution pipe* is located, and
- (c) the backfill above the *distribution pipe*, including the topsoil and sodding or other anti-erosion measure, and the side slopes of any portion elevated above the natural ground elevation.

*Leaching bed fill* means unconsolidated material suitable for the construction of a *leaching bed*, placed in the area of the *leaching bed* in order to obtain the required unsaturated zone below the *distribution pipes* and the required lateral extent such that the *effluent* is absorbed.

*Loading rate* means the volume in litres of *effluent* per square metre applied in a single day to *soil*, as defined in Part 8 of Division B, or *leaching bed fill*.

*Low hazard industrial occupancy* (Group F, Division 3) means an *industrial occupancy* in which the *combustible* content is not more than 50 kg/m<sup>2</sup> or 1200 MJ/m<sup>2</sup> of *floor area*.

*Low human occupancy* means, when applied to a *farm building*, an *occupancy* in which the *occupant load* of not more than one person per 40 m<sup>2</sup> of *floor area* during normal use.

*Major occupancy* means the principal *occupancy* for which a *building* or part of a *building* is used or intended to be used, and is deemed to include the subsidiary *occupancies* that are an integral part of the principal *occupancy*.

*Medium hazard industrial occupancy* (Group F, Division 2) means an *industrial occupancy* in which the *combustible* content is more than 50 kg/m<sup>2</sup> or 1200 MJ/m<sup>2</sup> of *floor area* and that is not classified as a *high hazard industrial occupancy*.

*Mercantile occupancy* means the *occupancy* or use of a *building* or part of a *building* for the displaying or selling of retail goods, wares or merchandise.





*Noncombustible construction* means a type of construction in which a degree of fire safety is attained by the use of *noncombustible* materials for structural members and other building assemblies.

*Objective* means an objective set out in Article 2.2.1.1.

*Occupancy* means the use or intended use of a *building* or part of a *building* for the shelter or support of persons, animals or property.

*Occupant load* means the number of persons for which a *building* or part of a *building* is designed.

*Pail privy* means a latrine in which the receptacle for human waste consists of a removable container surmounted by a superstructure.

*Perched groundwater* means a free standing body of water in the ground extending to a limited depth.

*Percolation time* means the average time in minutes that is required for water to drop one centimetre during a percolation test or as determined by a *soil* evaluation or analysis.

*Performance level* means the level of performance under which all or part of an existing *building* functions with respect to its *building systems*.

*Portable privy* means a portable latrine in which the receptacle for human body waste and the superstructure are combined structurally into one unit.

*Potable* means fit for human consumption.

*Potable water system* means the *plumbing* that conveys *potable* water.

*Pressurized distribution system* means a *leaching bed* in which the *effluent* is distributed through the use of pressurized *distribution pipes*.

*Private sewage disposal system* means a *sewage system* or a *sewage works* that is not owned and operated by the Crown, a municipality or an organization acceptable to the Director responsible for issuing a Certificate of Approval under the *Ontario Water Resources Act*.

*Private sewer* means a sewer other than a *building sewer* that,  
(a) is not owned or operated by a municipality, the Ministry of Environment or another public agency,

- (b) receives drainage from more than one *sanitary building drain* either directly or through more than one *sanitary building sewer* or receives drainage from more than one *storm building drain* either directly or through one or more *storm building sewers*, and connects to a main sewer, or
- (c) serves as a place of disposal on the property,

but does not include,

- (d) a sewer that carries only the sanitary waste or *storm sewage* from two semi-detached dwelling units,
- (e) a sewer that carries only the sanitary waste or *storm sewage* from one main *building* that is of *industrial*, commercial or *care or detention occupancy* and one ancillary *building*, or
- (f) a sewer that carries only the sanitary waste or *storm sewage* from a row housing complex having five or fewer single family residences.

*Privy vault* means a latrine in which the receptacle for human waste consists of a constructed vault from which the waste is periodically removed.

*Professional engineer* means, for the purposes of the Act and this Code, a person who holds a licence or a temporary licence under the *Professional Engineers Act*.

*Public heritage building* means a *heritage building* where the *occupancy* in whole or in part includes viewing of the *building* by the public provided that displays in it are limited to those relevant to the heritage significance of the *building*.

*Residential occupancy* means the *occupancy* or use of a *building* or part of a *building* by persons for whom sleeping accommodation is provided but who are not harboured or detained there to receive medical care or treatment or who are not involuntarily detained there.

*Sanitary drainage pipe* means all piping that conveys *sanitary sewage* to a place of disposal, including the *sanitary building drain*, *sanitary building sewer*, *soil pipe*, *soil stack*, *waste stack* and *waste pipe* but not the main sewer or piping in a *sewage treatment plant*.

*Sanitary drainage system* means a *drainage system* that conducts *sanitary sewage*.

*Sanitary sewage* means liquid or water borne waste,

- (a) of industrial or commercial origin, or
- (b) of domestic origin, including human body waste, toilet or other bathroom waste, and shower, tub, culinary, sink and laundry waste.

*Sanitary sewer* means a sewer that conducts *sewage*.

*Sanitary unit* means a water closet, urinal, bidet or bedpan washer.

*Septic tank* means a watertight vault in which *sanitary sewage* is collected for the purpose of removing scum, grease and solids from the liquid without the addition of air and in which solids settling and anaerobic digestion of the *sanitary sewage* takes place.

*Sewage* means *sanitary sewage* or *storm sewage*.

*Sewage system* means,

- (a) a chemical toilet, an incinerating toilet, a recirculating toilet, a self-contained portable toilet and all forms of privy including a *portable privy*, an *earth pit privy*, a *pail privy*, a *privy vault* and a composting toilet system,
- (b) a *greywater* system,
- (c) a cesspool,
- (d) a *leaching bed* system, or
- (e) a system that requires or uses a *holding tank* for the retention of *hauled sewage* at the site where it is produced before its collection by a *hauled sewage system*,

where these,

- (f) have a *design capacity* of 10,000 litres per day or less,
- (g) have, in total, a *design capacity* of 10,000 litres per day or less, where more than one of these are located on a lot or parcel of land, and
- (h) are located wholly within the boundaries of the lot or parcel of land on which is located the *building* or *buildings* they serve.

*Sewage works* means sewage works as defined in subsection 1(1) of the *Ontario Water Resources Act*.

*Shallow buried trench* means an *absorption trench* that contains a *chamber*.

*Size* means the nominal diameter by which a pipe, fitting, *trap* or other similar item is commercially designated.

*Storey* means, except for the purposes of Part 7 of Division B, the portion of a *building*,

- (a) that is situated between the top of any floor and the top of the floor next above it, or
- (b) that is situated between the top of the floor and the ceiling above the floor, if there is no floor above it.

*Storm building drain* means a *building drain* that conducts storm water and is connected at its upstream end to a leader, sump or catch basin, and at its downstream end to a *building sewer* or a designated storm water disposal location.

*Storm building sewer* means a *building sewer* that conveys *storm sewage* to a place of disposal and commences 1 000 mm from the *building*.

*Storm drainage pipe* means all the connected piping that conveys *storm sewage* to a place of disposal and includes the *storm building drain*, *storm building sewer*, rain water *leader*, catch basin and area drain installed to collect water from the property and the piping that drains water from a swimming pool or from water cooled *air-conditioning* equipment, but does not include,

- (a) a main *storm sewer*,
- (b) a *subsoil drainage pipe*, or
- (c) a private sewage treatment and disposal facility designed for the treatment or retention of *storm sewage* prior to discharge to the natural environment.

*Storm drainage system* means a *drainage system* that conveys *storm sewage*.

*Storm sewage* means water that is discharged from a surface as a result of rainfall, snow melt or snowfall.

*Storm sewer* means a sewer that conveys *storm sewage*.

*Subsurface investigation* means the appraisal of the general subsurface conditions at a *building* site by analysis of information gained by methods such as geological surveys, in situ testing, sampling, visual inspection, laboratory testing of samples of the subsurface materials and *groundwater* observations and measurements.

*Surface water* means water on the surface of the ground.

*Treatment unit* means a device that, when designed, installed and operated in accordance with its design specifications, provides a specific degree of *sanitary sewage* treatment to reduce the contaminant load from that of *sanitary sewage* to a given *effluent* quality.

*Tribunal* means the License Appeal Tribunal established under the *License Appeal Tribunal Act, 1999*.

*Venting system* means an assembly of pipes and fittings that connects a *drainage system* with *open air* for circulation of air and the protection of *trap seals* in the *drainage system*.

*Working capacity* means the volume of liquid that a *treatment unit* or *holding tank* is capable of holding without overflowing while it is in its working position, but does not include the volume of liquid contained in a compartment in which a pump or siphon is installed.

#### **1.4.1.3. Definition of Applicable Law**

- (1) For the purposes of section 8 of the Act, *applicable law* means,
  - (a) the statutory requirements in the following provisions with respect to the following matters:
    - (i) section 5 of the *Charitable Institutions Act*, with respect to the approval by the Minister of the site and plans for a new *building* or an addition to an existing *building* used or to be used as a charitable institution,
    - (i.1) section 114 of the *City of Toronto Act, 2006* with respect to the approval by the City of Toronto or the Ontario Municipal Board of plans and drawings,
    - (ii) section 5 of Regulation 262 of the Revised Regulations of Ontario, 1990 (General), made under the *Day Nurseries Act*, with respect to the approval of plans for a new *building* to be erected or an existing *building* to be used, altered or renovated for use as a day nursery or for alterations or renovations to be made to premises used by a day nursery,
    - (iii) section 194 of the *Education Act*, with respect to the approval of the Minister for the *demolition* of a *building*,
    - (iv) section 6 of Regulation 314 of the Revised Regulations of Ontario, 1990 (General), made under the *Elderly Persons Centres Act*, with respect to the approval of the Minister for the *construction* of a *building* project,
    - (v) section 5 of the *Environmental Assessment Act* with respect to the approval of the Minister or the Environmental Review Tribunal to proceed with an undertaking,

- (vi) section 46 of the *Environmental Protection Act* with respect to the approval of the Minister to use land or land covered by water that has been used for the disposal of waste,
- (vii) section 168.3.1 of the *Environmental Protection Act* with respect to the *construction* of a *building* to be used in connection with a change of use of a property,
- (viii) paragraph 2 of subsection 168.6(1) of the *Environmental Protection Act* if a certificate of property use has been issued in respect of the property under subsection 168.6(1) of that Act,
- (ix) section 9 of Regulation 469 of the Revised Regulations of Ontario, 1990 (Equipment and Premises), made under the *Funeral Directors and Establishments Act*, with respect to the provision to the Registrar of architectural plans or drawings of the proposed *construction* or alteration of a funeral establishment,
- (x) section 14 of the *Homes for the Aged and Rest Homes Act* with respect to the approval of the Minister for the erection or alteration of a *building* for use as a home or a joint home,
- (xi) section 14 of the *Milk Act* with respect to the permit from the Director for the *construction* or alteration of any *building* intended for use as a plant,
- (xii) section 4 of Regulation 832 of the Revised Regulations of Ontario, 1990 (General), made under the *Nursing Homes Act*, with respect to the provision to the Director of plans and specifications and such information and other material as may be required by the Director in respect of the *construction*, alteration, addition to or renovation of a nursing home or conversion of an existing *building* into a nursing home,
- (xiii) section 11.1 of Ontario Regulation 267/03 (General) made under the *Nutrient Management Act, 2002* with respect to a proposed *building* or structure to house farm animals or store nutrients if that regulation requires the preparation and approval of a nutrient management strategy before *construction* of the proposed *building* or structure,
- (xiv) subsection 30(2) of the *Ontario Heritage Act* with respect to a consent of the council of a *municipality* to the alteration or *demolition* of a *building* where the council of the *municipality* has given a notice of intent to designate the *building* under subsection 29(3) of that Act,
- (xv) section 33 of the *Ontario Heritage Act* with respect to the consent of the council of a *municipality* for the alteration of property,

- r<sub>1</sub> (xvi) section 34 of the *Ontario Heritage Act* with respect to the consent of the council of a *municipality* for the *demolition* of a *building*,
  - (xvii) section 34.5 of the *Ontario Heritage Act* with respect to the consent of the Minister to the alteration or *demolition* of a designated *building*,
- e<sub>1</sub> (xviii) subsection 34.7(2) of the *Ontario Heritage Act* with respect to a consent of the Minister to the alteration or *demolition* of a *building* where the Minister has given a notice of intent to designate the *building* under section 34.6 of that Act,
- r<sub>1</sub> (xix) section 42 of the *Ontario Heritage Act* with respect to the permit given by the council of a *municipality* for the erection, alteration or *demolition* of a *building*,
  - (xx) section 14 of the *Ontario Planning and Development Act, 1994* with respect to any conflict between a development plan made under that Act and a zoning by-law that affects the proposed *building* or structure,
- r<sub>1</sub> (xxi) section 41 of the *Planning Act* with respect to the approval by the council of the *municipality* or the Municipal Board of plans and drawings,
- r<sub>1</sub> (xxi.1) Section 42 of the *Planning Act* with respect to the payment of money or making arrangements satisfactory to the council of a *municipality* for the payment of money, where the payment is required under subsection 42(6) of that Act,
  - (xxii) section 2 of Ontario Regulation 453/96 (Work Permit — Construction), made under the *Public Lands Act*, with respect to the work permit authorizing the *construction* or placement of a *building* on public land,
- e<sub>1</sub> (xxiii) Section 34 or 38 of the *Public Transportation and Highway Improvement Act* with respect to the permit from the Minister for the placement, erection or alteration of any *building* or other structure or the use of land,
- (b) the following provisions of Acts and regulations:
  - r<sub>1</sub> (0.i) subsection 102(3) of the *City of Toronto Act, 2006*,
  - (i) sections 28 and 53 of the *Development Charges Act, 1997*,
  - (ii) sections 257.83 and 257.93 of the *Education Act*,
  - (iii) subsection 5(4) of the *Environmental Assessment Act*,
  - (iv) subsection 133(4) of the *Municipal Act, 2001*,
  - (v) subsection 24(3) of the *Niagara Escarpment Planning and Development Act*,
  - (vi) subsections 4(3) and (5) of Regulation 832 of the Revised Regulations of Ontario, 1990 (General), made under the *Nursing Homes Act*,

- (vi.1) subsection 27(3) of the *Ontario Heritage Act*,
  - (vii) section 46 of the *Planning Act*,
  - (viii) section 33 of the *Planning Act* except where, in the case of the *demolition* of a residential property, a permit to *demolish* the property is obtained under that section,
  - (c) regulations made by a conservation authority under clause 28(1)(c) of the *Conservation Authorities Act* with respect to permission of the authority for the *construction* of a *building* or structure if, in the opinion of the authority, the control of flooding, erosion, dynamic beaches or pollution or the conservation of land may be affected by the development,
  - (d) by-laws made under section 40.1 of the *Ontario Heritage Act*,
  - r<sub>1</sub> (e) by-laws made under section 34 or 38 of the *Planning Act*,
  - r<sub>1</sub> (e.1) subject to Clause (e.2), by-laws made under Ontario Regulation 608/06 (Development Permits) made under the *Planning Act*,
  - r<sub>1</sub> (e.2) by-laws referred to in Clause (e.1) in relation to the development of land, but only with respect to the issuance of a development permit if the development of land is prohibited unless a development permit is obtained,
  - r<sub>1</sub> (e.3) by-laws made under Ontario Regulation 246/01 (Development Permits) made under the *Planning Act* which continue in force despite the revocation of that regulation by reason of section 17 of Ontario Regulation 608/06 (Development Permits) made under that Act,
  - (f) orders made by the Minister under section 47 of the *Planning Act* or subsection 17(1) of the *Ontario Planning and Development Act, 1994*, and
  - (g) by-laws made under any private Act that prohibit the proposed *construction* or *demolition* of the *building* unless the by-law is complied with.
- (2) For the purposes of clause 10(2)(a) of the Act, *applicable law* means any general or special Act, and all regulations and by-laws enacted under them that prohibit the proposed use of the *building* unless the Act, regulation or by-law is complied with.

## 1.4.2. Symbols and Other Abbreviations

### 1.4.2.1. Symbols and Other Abbreviations

- (1) In this Code, a symbol or abbreviation listed in Column 1 of Table 1.4.2.1. shall have the meaning listed opposite it in Column 2.



**Table 1.4.2.1.**  
**Symbols and Abbreviations**  
 Forming Part of Sentence 1.4.2.1.(1)

Item	Symbol or Abbreviation	Meaning
1	1 in 2	slope of 1 vertical to 2 horizontal
2	ABS	acrylonitrile butadiene-styrene
3	BOD <sub>5</sub>	the five day biochemical oxygen demand
4	CBOD <sub>5</sub>	the five day carbonaceous biochemical oxygen demand
5	cm	centimetre(s)
6	cm <sup>2</sup>	square centimetre(s)
7	CPVC	chlorinated poly (vinyl chloride)
8	dB(A)	decibel-weighted sound level
9	°	degree(s)
10	°C	degree(s) Celsius
11	diam	diameter
12	DWV	drain, waste and vent
13	ft	foot (feet)
14	g	gram(s)
15	ga	gauge
16	gal	imperial gallon(s)
17	gal/min	imperial gallon(s) per minute
18	h	hour(s)
19	HVAC	heating, ventilating and air-conditioning
20	Hz	hertz
21	in.	inch(es)
22	J	joule(s)
23	kg	kilogram(s)
24	kg/m <sup>2</sup>	kilograms per square metre
25	kN	kilonewton(s)
26	kPa	kilopascal(s)
27	kW	kilowatt(s)
28	L	litre(s)
29	L/s	litre(s) per second
30	lx	lux
Col. 1	2	3

**Table 1.4.2.1. (Cont'd)**  
**Symbols and Abbreviations**  
 Forming Part of Sentence 1.4.2.1.(1)

Item	Symbol or Abbreviation	Meaning
31	m	metre(s)
32	m <sup>2</sup>	square metre(s)
33	m/s	metre(s) per second
34	max.	maximum
35	mg/L	milligram(s) per litre
36	min	minute(s)
37	MJ	megajoule(s)
38	mm	millimetre(s)
39	MPa	megapascal(s)
40	N	newton
41	N/A	not applicable
42	ng	nanogram(s)
43	No.	number(s)
44	nom.	nominal
45	o.c.	on centre
46	OSB	oriented strandboard
47	Pa	pascal(s)
48	PB	polybutylene
49	PE	polyethylene
50	PE/AL/PE	polyethylene/aluminum/polyethylene
51	PEX	cross-linked polyethylene
52	PEX/AL/PEX	crosslinked polyethylene/aluminum/crosslinked polyethylene
53	PVC	poly (vinyl chloride)
54	RSI	thermal resistance, International System of Units
55	s	second(s)
56	temp.	temperature
57	T&G	tongue and groove
58	W	watt(s)
59	wt	weight
60	%	percent
Col. 1	2	3



## **Section 1.5. Referenced Documents and Organizations**

### **1.5.1. Referenced Documents**

#### **1.5.1.1. Application of Referenced Documents**

- (1) The provisions of a referenced document in Divisions A and B apply only to the extent that the provisions relate to,
- (a) *buildings*, and
  - (b) the *objectives* and *functional statements* attributed to the applicable *acceptable solutions* in Division B where the document is referenced.

#### **1.5.1.2. Conflicting Requirements**

- (1) In the case of a conflict between the provisions of this Code and those of a referenced document, the provisions of this Code shall govern.

#### **1.5.1.3. Applicable Editions**

- (1) Where documents are referenced in this Code, they shall be the editions designated in Subsection 1.3.1. of Division B.

### **1.5.2. Organizations**

#### **1.5.2.1. Abbreviations of Proper Names**

- (1) The abbreviations of proper names in this Code shall have the meanings assigned to them in Article 1.3.2.1. of Division B.





## Part 2

### Objectives

Section	2.1.	Application	
	2.1.1.	Application .....	3
Section	2.2.	Objectives	
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## **Part 2**

### **Objectives**

#### **Section 2.1. Application**

##### **2.1.1. Application**

##### **2.1.1.1. Application of Objectives**

- (1) The *objectives* set out in Table 2.2.1.1. apply only to the extent that they relate to compliance with this Code as required in Article 1.2.1.1.

#### **Section 2.2. Objectives**

##### **2.2.1. Objectives**

##### **2.2.1.1. Objectives**

- (1) The *objectives* of this Code shall be those set out in Table 2.2.1.1.

**Table 2.2.1.1.**  
**Objectives**  
 Forming Part of Sentence 2.2.1.1.(1)

Category	Number	Objective
Safety	OS	An <i>objective</i> of this Code is to limit the probability that, as a result of the design or <i>construction</i> of a <i>building</i> , a person in or adjacent to the <i>building</i> will be exposed to an unacceptable risk of injury.
Safety — Fire Safety	OS1	An <i>objective</i> of this Code is to limit the probability that, as a result of the design or <i>construction</i> of a <i>building</i> , a person in or adjacent to the <i>building</i> will be exposed to an unacceptable risk of injury due to fire.
	OS1.1	An <i>objective</i> of this Code is to limit the probability that, as a result of the design or construction of a <i>building</i> , a person in or adjacent to the <i>building</i> will be exposed to an unacceptable risk of injury due to fire caused by a fire or explosion.
	OS1.2	An <i>objective</i> of this Code is to limit the probability that, as a result of the design or <i>construction</i> of a <i>building</i> , a person in or adjacent to the <i>building</i> will be exposed to an unacceptable risk of injury due to fire caused by fire or explosion impacting areas beyond its point of origin.
	OS1.3	An <i>objective</i> of this Code is to limit the probability that, as a result of the design or <i>construction</i> of a <i>building</i> , a person in or adjacent to the <i>building</i> will be exposed to an unacceptable risk of injury due to fire caused by the collapse of physical elements due to a fire or explosion.
	OS1.4	An <i>objective</i> of this Code is to limit the probability that, as a result of the design or <i>construction</i> of a <i>building</i> , a person in or adjacent to the <i>building</i> will be exposed to an unacceptable risk of injury due to fire caused by fire safety systems failing to function as expected.
	OS1.5	An <i>objective</i> of this Code is to limit the probability that, as a result of the design or <i>construction</i> of a <i>building</i> , a person in or adjacent to the <i>building</i> will be exposed to an unacceptable risk of injury due to fire caused by persons being delayed in or impeded from moving to a safe place during a fire emergency.
Column 1	2	3



**Table 2.2.1.1. (Cont'd)**  
**Objectives**  
 Forming Part of Sentence 2.2.1.1.(1)

Category	Number	Objective
Safety — Structural Safety	OS2	An <i>objective</i> of this Code is to limit the probability that, as a result of the design or <i>construction</i> of a <i>building</i> , a person in or adjacent to the <i>building</i> will be exposed to an unacceptable risk of injury due to structural failure.
	OS2.1	An <i>objective</i> of this Code is to limit the probability that, as a result of the design or <i>construction</i> of a <i>building</i> , a person in or adjacent to the <i>building</i> will be exposed to an unacceptable risk of injury due to structural failure caused by loads bearing on the <i>building</i> elements that exceed their load-bearing capacity.
	OS2.2	An <i>objective</i> of this Code is to limit the probability that, as a result of the design or <i>construction</i> of a <i>building</i> , a person in or adjacent to the <i>building</i> will be exposed to an unacceptable risk of injury due to structural failure caused by loads bearing on the <i>building</i> that exceed the loadbearing properties of the supporting medium.
	OS2.3	An <i>objective</i> of this Code is to limit the probability that, as a result of the design or <i>construction</i> of a <i>building</i> , a person in or adjacent to the <i>building</i> will be exposed to an unacceptable risk of injury due to structural failure caused by damage to or deterioration of <i>building</i> elements.
	OS2.4	An <i>objective</i> of this Code is to limit the probability that, as a result of the design or <i>construction</i> of a <i>building</i> , a person in or adjacent to the <i>building</i> will be exposed to an unacceptable risk of injury due to structural failure caused by vibration or deflection of <i>building</i> elements.
	OS2.5	An <i>objective</i> of this Code is to limit the probability that, as a result of the design or <i>construction</i> of a <i>building</i> , a person in or adjacent to the <i>building</i> will be exposed to an unacceptable risk of injury due to structural failure caused by instability of the <i>building</i> or part of it.
	OS2.6	An <i>objective</i> of this Code is to limit the probability that, as a result of the design or <i>construction</i> of a <i>building</i> , a person in or adjacent to the <i>building</i> will be exposed to an unacceptable risk of injury due to structural failure caused by collapse of the <i>excavation</i> .
Column 1	2	3

**Table 2.2.1.1. (Cont'd)**  
**Objectives**  
 Forming Part of Sentence 2.2.1.1.(1)

Category	Number	Objective
Safety — Safety in Use	OS3	An <i>objective</i> of this Code is to limit the probability that, as a result of the design or <i>construction</i> of the <i>building</i> , a person in or adjacent to the <i>building</i> will be exposed to an unacceptable risk of injury due to hazards.
	OS3.1	An <i>objective</i> of this Code is to limit the probability that, as a result of the design or <i>construction</i> of a <i>building</i> , a person in or adjacent to the <i>building</i> will be exposed to an unacceptable risk of injury due to hazards caused by tripping, slipping, falling, contact, drowning or collision.
	OS3.2	An <i>objective</i> of this Code is to limit the probability that, as a result of the design or <i>construction</i> of a <i>building</i> , a person in or adjacent to the <i>building</i> will be exposed to an unacceptable risk of injury due to hazards caused by contact with hot surfaces or substances.
	OS3.3	An <i>objective</i> of this Code is to limit the probability that, as a result of the design or <i>construction</i> of a <i>building</i> , a person in or adjacent to the <i>building</i> will be exposed to an unacceptable risk of injury due to hazards caused by contact with energized equipment.
	OS3.4	An <i>objective</i> of this Code is to limit the probability that, as a result of the design or <i>construction</i> of a <i>building</i> , a person in or adjacent to the <i>building</i> will be exposed to an unacceptable risk of injury due to hazards caused by exposure to hazardous substances.
	OS3.5	An <i>objective</i> of this Code is to limit the probability that, as a result of the design or <i>construction</i> of a <i>building</i> , a person in or adjacent to the <i>building</i> will be exposed to an unacceptable risk of injury due to hazards caused by exposure to high levels of sound from fire alarm systems.
	OS3.6	An <i>objective</i> of this Code is to limit the probability that, as a result of the design or <i>construction</i> of a <i>building</i> , a person in or adjacent to the <i>building</i> will be exposed to an unacceptable risk of injury due to hazards caused by persons becoming trapped in confined spaces.
	OS3.7	An <i>objective</i> of this Code is to limit the probability that, as a result of the design or <i>construction</i> of a <i>building</i> , a person in or adjacent to the <i>building</i> will be exposed to an unacceptable risk of injury due to hazards caused by persons being delayed in or impeded from moving to a safe place during an emergency.
Column 1	2	3



**Table 2.2.1.1. (Cont'd)**  
**Objectives**  
 Forming Part of Sentence 2.2.1.1.(1)

Category	Number	Objective
Safety — Resistance to Unwanted Entry	OS4	An <i>objective</i> of this Code is to limit the probability that, as a result of the design or <i>construction</i> of a <i>building</i> , a person in the <i>building</i> will be exposed to an unacceptable risk of injury due to the <i>building's</i> low level of resistance to unwanted entry.
	OS4.1	An <i>objective</i> of this Code is to limit the probability that, as a result of the design or <i>construction</i> of a <i>building</i> , a person in the <i>building</i> will be exposed to an unacceptable risk of injury due to the <i>building's</i> low level of resistance to unwanted entry caused by intruders being able to force their way through locked doors or windows.
	OS4.2	An <i>objective</i> of this Code is to limit the probability that, as a result of the design or <i>construction</i> of a <i>building</i> , a person in the <i>building</i> will be exposed to an unacceptable risk of injury due to the <i>building's</i> low level of resistance to unwanted entry caused by occupants being unable to identify potential intruders as such.
Health	OH	An <i>objective</i> of this Code is to limit the probability that, as a result of the design or <i>construction</i> of a <i>building</i> , a person will be exposed to an unacceptable risk of illness.
Health — Indoor Conditions	OH1	An <i>objective</i> of this Code is to limit the probability that, as a result of the design or <i>construction</i> of a <i>building</i> , a person in the <i>building</i> will be exposed to an unacceptable risk of illness due to indoor conditions.
	OH1.1	An <i>objective</i> of this Code is to limit the probability that, as a result of the design or <i>construction</i> of a <i>building</i> , a person in the <i>building</i> will be exposed to an unacceptable risk of illness due to indoor conditions caused by inadequate indoor air quality.
	OH1.2	An <i>objective</i> of this Code is to limit the probability that, as a result of the design or <i>construction</i> of a <i>building</i> , a person in the <i>building</i> will be exposed to an unacceptable risk of illness due to indoor conditions caused by inadequate thermal comfort.
	OH1.3	An <i>objective</i> of this Code is to limit the probability that, as a result of the design or <i>construction</i> of a <i>building</i> , a person in the <i>building</i> will be exposed to an unacceptable risk of illness due to indoor conditions caused by contact with moisture.
Column 1	2	3

**Table 2.2.1.1. (Cont'd)**  
**Objectives**  
 Forming Part of Sentence 2.2.1.1.(1)

Category	Number	Objective
Health — Sanitation	OH2	An <i>objective</i> of this Code is to limit the probability that, as a result of the design or <i>construction</i> of a <i>building</i> , a person in or adjacent to the <i>building</i> will be exposed to an unacceptable risk of illness due to unsanitary conditions.
	OH2.1	An <i>objective</i> of this Code is to limit the probability that, as a result of the design or <i>construction</i> of a <i>building</i> , a person in the <i>building</i> will be exposed to an unacceptable risk of illness due to unsanitary conditions caused by exposure to human or domestic waste.
	OH2.2	An <i>objective</i> of this Code is to limit the probability that, as a result of the design or <i>construction</i> of a <i>building</i> , a person in the <i>building</i> will be exposed to an unacceptable risk of illness due to unsanitary conditions caused by consumption of contaminated water.
	OH2.3	An <i>objective</i> of this Code is to limit the probability that, as a result of the design or <i>construction</i> of a <i>building</i> , a person in the <i>building</i> will be exposed to an unacceptable risk of illness due to unsanitary conditions caused by inadequate facilities for personal hygiene.
	OH2.4	An <i>objective</i> of this Code is to limit the probability that, as a result of the design or <i>construction</i> of a <i>building</i> , a person in the <i>building</i> will be exposed to an unacceptable risk of illness due to unsanitary conditions caused by contact with contaminated surfaces.
	OH2.5	An <i>objective</i> of this Code is to limit the probability that, as a result of the design or <i>construction</i> of a <i>building</i> , a person in the <i>building</i> will be exposed to an unacceptable risk of illness due to unsanitary conditions caused by contact with vermin and insects.
	OH2.6	An <i>objective</i> of this Code is to limit the probability that, as a result of the design or <i>construction</i> of a <i>building</i> , a person adjacent to the <i>building</i> will be exposed to an unacceptable risk of illness due to unsanitary conditions caused by exposure to human or domestic waste.
Column 1	2	3

**Table 2.2.1.1. (Cont'd)**  
**Objectives**  
 Forming Part of Sentence 2.2.1.1.(1)

Category	Number	Objective
Health — Noise Protection	OH3	An <i>objective</i> of this Code is to limit the probability that, as a result of the design or <i>construction</i> of a <i>building</i> , a person in the <i>building</i> will be exposed to an unacceptable risk of illness due to high levels of sound originating in adjacent spaces in the <i>building</i> .
	OH3.1	An <i>objective</i> of this Code is to limit the probability that, as a result of the design or <i>construction</i> of a <i>building</i> , a person in the <i>building</i> will be exposed to an unacceptable risk of illness due to high levels of sound originating in adjacent spaces in the <i>building</i> caused by exposure to airborne sound transmitted through assemblies separating <i>dwelling units</i> from adjacent spaces in the <i>building</i> .
Health — Vibration and Deflection Limitation	OH4	An <i>objective</i> of this Code is to limit the probability that, as a result of the design or <i>construction</i> of a <i>building</i> , a person in the <i>building</i> will be exposed to an unacceptable risk of illness due to high levels of vibration or deflection of <i>building elements</i> .
Health — Hazardous Substances Containment	OH5	An <i>objective</i> of this Code is to limit the probability that, as a result of the design or <i>construction</i> of a <i>building</i> , the public will be exposed to an unacceptable risk of illness due to the release of hazardous substances from the <i>building</i> .
Health — Privacy	OH6	An <i>objective</i> of this Code is to limit the probability that, as a result of the design or <i>construction</i> of a <i>building</i> , a person in the <i>building</i> will be provided with an unacceptable level of privacy.
Health — View To The Outdoors	OH7	An <i>objective</i> of this Code is to limit the probability that, as a result of the design or <i>construction</i> of a <i>building</i> , a person in the <i>building</i> will be unable to experience a view to the outdoors.
Accessibility	OA	An <i>objective</i> of this Code is to limit the probability that, as a result of the design or <i>construction</i> of a <i>building</i> , a person with a physical or sensory disability will be unacceptably impeded from accessing or using the <i>building</i> or its facilities.
Column 1	2	3

**Table 2.2.1.1. (Cont'd)**  
**Objectives**  
 Forming Part of Sentence 2.2.1.1.(1)

Category	Number	Objective
Accessibility — Barrier-free Path of Travel	OA1	An <i>objective</i> of this Code is to limit the probability that, as a result of the design or <i>construction</i> of a <i>building</i> , a person with a physical or sensory disability will be unacceptably impeded from accessing the <i>building</i> or circulating within it.
Accessibility — Barrier-free Facilities	OA2	An <i>objective</i> of this Code is to limit the probability that, as a result of the design or <i>construction</i> of a <i>building</i> , a person with a physical or sensory disability will be unacceptably impeded from using the <i>building's</i> facilities.
Fire, Structural, Water and Sewage Protection of Buildings	OP	An <i>objective</i> of this Code is to limit the probability that, as a result of its design or <i>construction</i> , the <i>building</i> or adjacent <i>buildings</i> will be exposed to an unacceptable risk of damage due to fire or structural insufficiency, or the <i>building</i> or part of it will be exposed to an unacceptable risk of loss of use also due to structural insufficiency.
Fire, Structural, Water and Sewage Protection of Buildings — Fire Protection of the Building	OP1	An <i>objective</i> of this Code is to limit the probability that, as a result of its design or <i>construction</i> , a <i>building</i> will be exposed to an unacceptable risk of damage due to fire.
	OP1.1	An <i>objective</i> of this Code is to limit the probability that, as a result of its design or <i>construction</i> , a <i>building</i> will be exposed to an unacceptable risk of damage due to fire caused by fire or explosion occurring.
	OP1.2	An <i>objective</i> of this Code is to limit the probability that, as a result of its design or <i>construction</i> , a <i>building</i> will be exposed to an unacceptable risk of damage due to fire caused by fire or explosion impacting areas beyond its point of origin.
	OP1.3	An <i>objective</i> of this Code is to limit the probability that, as a result of its design or <i>construction</i> , a <i>building</i> will be exposed to an unacceptable risk of damage due to fire caused by collapse of physical elements due to a fire or explosion.
	OP1.4	An <i>objective</i> of this Code is to limit the probability that, as a result of its design or <i>construction</i> , a <i>building</i> will be exposed to an unacceptable risk of damage due to fire caused by fire safety systems failing to function as expected.
Column 1	2	3

**Table 2.2.1.1. (Cont'd)**  
**Objectives**  
 Forming Part of Sentence 2.2.1.1.(1)

Category	Number	Objective
Fire, Structural, Water and Sewage Protection of Buildings — Structural Sufficiency of the Building	OP2	An <i>objective</i> of this Code is to limit the probability that, as a result of its design or <i>construction</i> , a <i>building</i> or part of it will be exposed to an unacceptable risk of damage or loss of use due to structural failure or lack of structural serviceability.
	OP2.1	An <i>objective</i> of this Code is to limit the probability that, as a result of its design or <i>construction</i> , a <i>building</i> or part of it will be exposed to an unacceptable risk of damage or loss of use due to structural failure or lack of structural serviceability caused by loads bearing on the <i>building</i> elements that exceed their <i>loadbearing</i> capacity.
	OP2.2	An <i>objective</i> of this Code is to limit the probability that, as a result of its design or <i>construction</i> , a <i>building</i> or part of it will be exposed to an unacceptable risk of damage or loss of use due to structural failure or lack of structural serviceability caused by loads bearing on the <i>building</i> that exceed the <i>loadbearing</i> properties of the supporting medium.
	OP2.3	An <i>objective</i> of this Code is to limit the probability that, as a result of its design or <i>construction</i> , a <i>building</i> or part of it will be exposed to an unacceptable risk of damage or loss of use due to structural failure or lack of structural serviceability caused by damage to or deterioration of <i>building</i> elements.
	OP2.4	An <i>objective</i> of this Code is to limit the probability that, as a result of its design or <i>construction</i> , a <i>building</i> or part of it will be exposed to an unacceptable risk of damage or loss of use due to structural failure or lack of structural serviceability caused by vibration or deflection of <i>building</i> elements.
	OP2.5	An <i>objective</i> of this Code is to limit the probability that, as a result of its design or <i>construction</i> , a <i>building</i> or part of it will be exposed to an unacceptable risk of damage or loss of use due to structural failure or lack of structural serviceability caused by instability of the <i>building</i> or part of it.
Column 1	2	3

**Table 2.2.1.1. (Cont'd)**  
**Objectives**  
 Forming Part of Sentence 2.2.1.1.(1)

Category	Number	Objective
Fire, Structural, Water and Sewage Protection of Buildings — Structural Sufficiency of the Building	OP2.6	An <i>objective</i> of this Code is to limit the probability that, as a result of its design or <i>construction</i> , a <i>building</i> or part of it will be exposed to an unacceptable risk of damage or loss of use due to structural failure or lack of structural serviceability caused by instability or movement of the supporting medium.
Fire, Structural, Water and Sewage Protection of Buildings — Protection of Adjacent Buildings from Fire	OP3	An <i>objective</i> of this Code is to limit the probability that, as a result of the design or <i>construction</i> of a <i>building</i> , adjacent <i>buildings</i> will be exposed to an unacceptable risk of damage due to fire.
	OP3.1	An <i>objective</i> of this Code is to limit the probability that, as a result of the design or <i>construction</i> of a <i>building</i> , adjacent <i>buildings</i> will be exposed to an unacceptable risk of damage due to fire caused by fire or explosion impacting areas beyond the building of origin.
Fire, Structural, Water and Sewage Protection of Buildings — Protection of Adjacent Buildings from Structural Damage	OP4	An <i>objective</i> of this Code is to limit the probability that, as a result of the design or <i>construction</i> of a <i>building</i> , adjacent <i>buildings</i> will be exposed to an unacceptable risk of structural damage.
	OP4.1	An <i>objective</i> of this Code is to limit the probability that, as a result of the design or <i>construction</i> of a <i>building</i> , adjacent <i>buildings</i> will be exposed to an unacceptable risk of structural damage caused by settlement of the medium supporting adjacent <i>buildings</i> .
	OP4.2	An <i>objective</i> of this Code is to limit the probability that, as a result of the design or <i>construction</i> of the <i>building</i> , adjacent <i>buildings</i> will be exposed to an unacceptable risk of structural damage caused by collapse of the <i>building</i> or portion of it onto adjacent <i>buildings</i> .
	OP4.3	An <i>objective</i> of this Code is to limit the probability that, as a result of the design or <i>construction</i> of a <i>building</i> , adjacent <i>buildings</i> will be exposed to an unacceptable risk of structural damage caused by impact of the <i>building</i> on adjacent <i>buildings</i> .
	OP4.4	An <i>objective</i> of this Code is to limit the probability that, as a result of the design or <i>construction</i> of a <i>building</i> , adjacent <i>buildings</i> will be exposed to an unacceptable risk of structural damage caused by collapse of the <i>excavation</i> .
Column 1	2	3



**Table 2.2.1.1. (Cont'd)**  
**Objectives**  
 Forming Part of Sentence 2.2.1.1.(1)

Category	Number	Objective
Fire, Structural, Water and Sewage Protection of Buildings — Water and Sewage Protection of Buildings and Facilities	OP5	An <i>objective</i> of this Code is to limit the probability that, as a result of its design or <i>construction</i> , a <i>building</i> will be exposed to unacceptable risk of damage due to leakage of service water or <i>sewage</i> .
Resource Conservation	OR	An <i>objective</i> of this Code is to limit the probability that, as a result of the design or <i>construction</i> of a <i>building</i> , a natural resource will be exposed to an unacceptable risk of depletion or the capacity of the infrastructure supporting the use of the resource will be exposed to an unacceptable risk of being exceeded.
Resource Conservation — Water Conservation	OR1	An <i>objective</i> of this Code is to limit the probability that, as a result of the design or <i>construction</i> of a <i>building</i> , water resources will be exposed to an unacceptable risk of depletion or the capacity of the water supply, treatment and disposal infrastructure will be exposed to an unacceptable risk of being exceeded, caused by the consumption of water.
Resource Conservation — Energy Conservation	OR2	An <i>objective</i> of this Code is to limit the probability that, as a result of the design or <i>construction</i> of a <i>building</i> , a natural resource will be exposed to an unacceptable risk of depletion or the capacity of the infrastructure supporting the use of the resource will be exposed to an unacceptable risk of being exceeded, caused by the consumption of energy.
Environmental Integrity	OE	An <i>objective</i> of this Code is to limit the probability that, as a result of the design, <i>construction</i> or operation of a <i>building</i> , the natural environment will be exposed to an unacceptable risk of degradation.
Conservation of Buildings	OC	An <i>objective</i> of this Code is to limit the probability that, as a result of the extension, material alteration or repair of an existing <i>building</i> or a change in use of an existing <i>building</i> , the existing <i>building</i> cannot be acceptably conserved.
Column 1	2	3



**Part 3****Functional Statements**

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## **Part 3**

### **Functional Statements**

#### **Section 3.1. Application**

##### **3.1.1. Application**

###### **3.1.1.1. Application of Functional Statements**

- (1) The *functional statements* set out in Table 3.2.1.1, apply only to the extent that they relate to compliance with this Code as required in Article 1.2.1.1.

#### **Section 3.2. Functional Statements**

##### **3.2.1. Functional Statements**

###### **3.2.1.1. Functional Statements**

- (1) The *functional statements* of this Code are those set out in Table 3.2.1.1.

**Table 3.2.1.1.**  
**Functional Statements**  
 Forming Part of Sentence 3.2.1.1.(1)

Number	Function
F01	To minimize the risk of accidental ignition.
F02	To limit the severity and effects of fire or explosions.
F03	To retard the effects of fire on areas beyond its point of origin.
F04	To retard failure or collapse due to the effects of fire.
F05	To retard the effects of fire on emergency egress facilities.
F06	To retard the effects of fire on facilities for notification, suppression and emergency response.
F10	To facilitate the timely movement of persons to a safe place in an emergency.
F11	To notify persons, in a timely manner, of the need to take action in an emergency.
F12	To facilitate emergency response.
F13	To notify emergency responders, in a timely manner, of the need to take action in an emergency.
F20	To support and withstand expected loads and forces.
F21	To limit or accommodate dimensional change.
F22	To limit movement under expected loads and forces.
F23	To maintain equipment in place during structural movement.
F30	To minimize the risk of injury to persons as a result of tripping, slipping, falling, contact, drowning or collision.
F31	To minimize the risk of injury to persons as a result of contact with hot surfaces or substances.
F32	To minimize the risk of injury to persons as a result of contact with energized equipment.
F33	To limit the level of sound of a fire alarm system.
F34	To resist or discourage unwanted access or entry.
F35	To facilitate the identification of potential intruders.
F36	To minimize the risk that persons will be trapped in confined spaces.
Column 1	2

**Table 3.2.1.1. (Cont'd)**  
**Functional Statements**  
 Forming Part of Sentence 3.2.1.1.(1)

Number	Function
F40	To limit the level of contaminants.
F41	To minimize the risk of generation of contaminants.
F42	To resist the entry of vermin and insects.
F43	To minimize the risk of release of hazardous substances.
F44	To limit the spread of hazardous substances beyond their point of release.
F45	To minimize the risk of the spread of diseases through communal shower facilities
F46	To minimize the risk of contamination of potable water.
F50	To provide air suitable for breathing.
F51	To maintain appropriate air and surface temperatures.
F52	To maintain appropriate relative humidity.
F53	To maintain appropriate indoor/outdoor air pressure differences.
F54	To limit drafts.
F55	To resist the transfer of air through environmental separators.
F56	To limit the transmission of airborne sound into a <i>dwelling unit</i> from spaces elsewhere in the <i>building</i> .
F60	To control the accumulation and pressure of water on and in the ground.
F61	To resist the ingress of precipitation, water or moisture from the exterior or from the ground.
F62	To facilitate the dissipation of water and moisture from the <i>building</i> .
F63	To limit moisture condensation.
F70	To provide <i>potable</i> water.
F71	To provide facilities for personal hygiene.
F72	To provide facilities for the sanitary disposal of human and domestic wastes.
F73	To facilitate access to and circulation in the <i>building</i> and its facilities by persons with physical or sensory disabilities.
F74	To facilitate the use of a <i>building's</i> facilities by persons with physical or sensory disabilities.
Column 1	2

**Table 3.2.1.1. (Cont'd)**  
**Functional Statements**  
 Forming Part of Sentence 3.2.1.1.(1)

Number	Function
F80	To resist deterioration resulting from expected service conditions.
F81	To minimize the risk of malfunction, interference, damage, tampering, lack of use or misuse.
F82	To minimize the risk of inadequate performance due to improper maintenance or lack of maintenance.
F101	To limit unwanted visual exposure.
F102	To provide a view to the outdoors in <i>buildings</i> .
F110	To control the release of contaminants into <i>soil, groundwater, surface water</i> and air.
F111	To minimize the risk of malfunction, damage or failure of a <i>sewage system</i> .
F112	To provide adequate treatment of <i>sanitary sewage</i> and <i>effluent</i> .
F113	To minimize the risk of injury as a result of contact with <i>sanitary sewage</i> or partially treated <i>effluent</i> .
F120	To minimize the risk of injury to persons entering or exiting the pool, as a result of unfamiliarity with the pool.
F121	To minimize the risk of injury to persons using the pool, as a result of unfamiliarity with the pool.
F122	To minimize the risk of contamination of pool water.
F123	To facilitate timely response to incapacitated pool users.
F124	To minimize the risk of entrapment or injury to a person within the pool, as a result of water, air or vacuum action.
F130	To limit excessive water consumption.
F131	To limit excessive energy consumption.
F140	To facilitate the reuse and material alteration and repair of existing <i>buildings</i> .
Column 1	2



## **Division B**

### **Acceptable Solutions**

#### **Part 1**

##### **General**

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**Part 1****General****Section 1.1. General****1.1.1. Application****1.1.1.1. Application**

- (1) This Part applies to all *buildings* covered in this Code.

**1.1.2. Climatic Data****1.1.2.1. Climatic and Seismic Design Values**

- (1) The climatic and seismic values required for the design of *buildings* under this Code shall be in conformance with the climatic and seismic values provided in Supplementary Standard SB-1.
- (2) The outside winter design temperatures determined from Supplementary Standard SB-1 shall be those listed for the January 2.5% values.

**1.1.2.2. Depth of Frost Penetration**

- (1) Depth of frost penetration shall be established on the basis of local experience.

**Section 1.2. Reserved****Section 1.3. Referenced Documents and Organizations****1.3.1. Referenced Documents****1.3.1.1. Effective Date**

- (1) Unless otherwise specified in this Code, the documents referenced in this Code shall include all amendments, revisions and supplements effective to May 31, 2006.

### 1.3.1.2. Applicable Editions

(1) Where documents are referenced in this Code, they shall be the editions designated in Column 2 of Table 1.3.1.2.

**Table 1.3.1.2.**  
**Documents Referenced in the Building Code**  
Forming Part of Sentence 1.3.1.2.(1)

Issuing Agency	Document Number	Title of Document	Code Reference
APHA/AWWA/WEF	2005, 21 <sup>st</sup> Edition	Standard Methods for the Examination of Water and Waste Water	8.9.2.4.(1)(b)
CSA	B66-05	Design, Material, and Manufacturing Requirements for Prefabricated Septic Tanks and Sewage Holding Tanks	8.2.2.2.(1) 8.2.2.2.(2) 8.2.2.2.(3) 8.2.2.3.(7)
NSF/ANSI	46-2005	Evaluation of Components and Devices Used in Wastewater Treatment Systems	8.6.2.1.(2)
Column 1	2	3	4

### 1.3.2. Abbreviations

#### 1.3.2.1. Abbreviations of Proper Names

(1) In this Code, an abbreviations of proper names listed in Column 1 of Table 1.3.2.1. shall have the meaning assigned opposite it in Column 2.

**Table 1.3.2.1.**  
**Abbreviations Of Proper Names**  
Forming Part of Sentence 1.3.2.1.(1)

Abbreviation	Meaning
ANSI	American National Standards Institute
APHA	American Public Health Association
AWWA	American Water Works Association
CCBFC	Canadian Commission on Building and Fire Codes
CSA	Canadian Standards Association
MAH	Ontario Ministry of Municipal Affairs and Housing
NSF	NSF International (formerly called National Sanitation Federation)
WEF	World Environment Federation
Column 1	2

**Part 3**

**Fire Protection, Occupant Safety and Accessibility**

Section 3.1.	General	
3.1.7.	Occupant Load .....	3



## Part 3

### Fire Protection, Occupant Safety and Accessibility

#### 3.1.17. Occupant Load

##### 3.1.17.1. Occupant Load Determination

- (1) The *occupant load* of a *floor area* or part of a *floor area*, or of a *building* or part of a *building* not having a *floor area*, shall be based on,
  - (a) the number of seats in an *assembly occupancy* having fixed seats,
  - (b) 2 persons per sleeping room or sleeping area in a *dwelling unit* or *suite*, or
  - (c) the number of persons,
    - (i) for which the area is designed, or
    - (ii) determined from Table 3.1.17.1. for *occupancies* other than those described in Clauses (a) and (b).
- (2) If a *floor area* or part of it has been designed for an *occupant load* other than that determined from Table 3.1.17.1., a permanent sign indicating that *occupant load* shall be posted in a conspicuous location.
- (3) For the purposes of this Article, *mezzanines*, tiers and balconies shall be regarded as part of the *floor area*.
- (4) If a room or group of rooms is intended for different *occupancies* at different times, the value to be used from Table 3.1.17.1. shall be the value that gives the greatest number of persons for the *occupancies* concerned.
- (5) Except as provided by Sentences (6) or (7), in dining, alcoholic beverage and cafeteria spaces the *occupant load* shall be determined from Table 3.1.17.1.
- (6) The *occupant load* in Sentence (5) is permitted to be the number of persons for which the space is designed.
- (7) The *occupant load* in Sentence (6) shall be not more than that determined by using an area of 0.6 m<sup>2</sup> per person.

**Table 3.1.17.1.**  
**Occupant Load**  
 Forming Part of Article 3.1.17.1.

Type of Use of Building or Floor Area or Part Thereof	Area per Person, m <sup>2</sup>
Assembly uses	
space with fixed seats	See Clause (1)(a)
space with nonfixed seats	0.75
stages for theatrical performances	0.75
space with nonfixed seats and tables	0.95
standing space	0.40
stadia and grandstands	0.60
bowling alleys, pool and billiard rooms	9.30
classrooms	1.85
school shops and vocational rooms	9.30
reading or writing rooms or lounges	1.85
dining, alcoholic beverage and cafeteria space	1.10
laboratories in schools	4.60
exhibition halls other than those classified in Group E	2.80
Care or detention uses	
B-1 : detention quarters	11.60
B-2 : treatment and sleeping room areas	10.00
B-3 : sleeping room areas	10.00
(See also Article 3.7.1.3.)	
Residential uses	
dwelling units	See Clause (1)(b)
dormitories	4.60
Business and personal services uses	
personal service shops	4.60
offices	9.30 (100)
Mercantile uses	
basements and first storeys	3.70
second storeys having a principal entrance from a pedestrian thoroughfare or a parking area	3.70
dining, alcoholic beverage and cafeteria space	1.10
other storeys	5.60
Industrial uses	
manufacturing or process rooms	4.60
storage garages	46.00
storage spaces (warehouse)	28.00
aircraft hangars	46.00
Column 1	2



**Table 3.1.17.1. (Cont'd)**  
**Occupant Load**  
 Forming Part of Article 3.1.17.1.

Type of Use of <i>Building or Floor Area</i> or Part Thereof	Area per Person, m <sup>2</sup>
Other uses	
cleaning and repair of goods	4.60
kitchens	9.30
storage	46.00
<i>public corridors</i> intended for <i>occupancies</i> in addition to pedestrian travel	3.70
Column 1	2

### **3.1.17.2. Dance Floor**

(1) The *occupant load* of a room in which a dance floor is situated shall be calculated in respect of that portion of the room that is not occupied by the dance floor.



## **Part 7**

### **Plumbing**

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## Part 7

### Plumbing

#### Section 7.4. Drainage Systems

##### 7.4.4.3. Interceptors

(8) The flow rate through a grease *interceptor* shall not exceed its rated capacity and the flow rate shall be determined using the following:

$$Q = \left( \sum_1^N \left( 0.75 \frac{V}{DDT} \right) \right) + PD$$

where:

- Q is the flow rate to a grease *interceptor* in L/s.
- V is the volume of the *fixture* in L.
- DDT is the drain down time, 60 or 120 seconds
- PD is any pump discharge in L/s.
- N is the number of *fixtures* to go through the *interceptor*.

##### 7.4.9. Size of Drainage Pipes

###### 7.4.9.3. Size of Fixture Outlet Pipes

(1) Except as provided in Sentence (2) the *size* of every *fixture outlet pipe* shall conform to Table 7.4.9.3.

**Table 7.4.9.3.**  
**Minimum Permitted Size of Fixture Outlet Pipe and Hydraulic Loads for Fixtures**  
 Forming Part of Sentence 7.4.9.3.(1) and 7.4.10.2.(1)

<i>Fixture</i>	<i>Minimum Size of Fixture Outlet Pipe, in.</i>	<i>Hydraulic Load, fixture units</i>
Autopsy table	1½	2
Bathroom group		
(a) with flush tank		6
(b) with direct flush valve		8
Bath tub (with or without shower)	1½	1½
Bath: foot, sitz or slab	1½	1½
Bed pan washer	3	6
Beer cabinet	1½	1½
Bidet	1¼	1
Chinese range	1½	3
Clothes washer		
(a) domestic	N/A	1½ with 1½ in. trap
(b) commercial	N/A	2 with 1½ in. trap
Cup sinks	1¼	½
Dental unit or cuspidor	1¼	1
Dishwasher		
(a) domestic	1½	1 (no load if connected to garbage grinder or domestic sink)
(b) commercial type	2	3
Drinking fountain	1¼	½
Fish tank or tray	1½	1½
Floor drain	2	2 with 2 in. trap 3 with 3 in. trap
Garbage grinder, commercial type	2	3
Icebox	1¼	1
Laundry tray		
(a) single or double units or 2 single units with common trap	1½	1½
(b) 3 compartments	1½	2
Column 1	2	3

**Table 7.4.9.3. (Cont'd)**  
**Minimum Permitted Size of Fixture Outlet Pipe and Hydraulic Loads for Fixtures**  
 Forming Part of Sentence 7.4.9.3.(1) and 7.4.10.2.(1)

<i>Fixture</i>	<i>Min. Size of Fixture Outlet Pipe, in.</i>	<i>Hydraulic Load, fixture units</i>
Lavatory		
(a) barber or beauty parlor	1½	1½
(b) dental	1¼	1
(c) domestic type single, or 2 single with common trap	1¼	1 with 1¼ in. trap 1½ with 1½ in. trap
(d) multiple or industrial type	1½	3
Macerating Toilet System for single bathroom	See Sentence 7.4.9.2.(4)	4
Potato Peeler	2	3
Shower drain		
(a) from 1 head	1½	1½
(b) from 2 or 3 heads	2	3
(c) from 4 to 6 heads	3	6
Sink		
(a) domestic and other small type with or without garbage grinders, single, double or 2 single with a common trap	1½	1½  1½ with 1½ in. trap
(b) other sinks	1½	2 with 2 in. trap 3 with 3 in. trap
Urinal		
(a) pedestal, siphon jet or blowout type	2	4
(b) stall, washout type	2	2
(c) wall		
(i) washout type	1½	1½
(ii) other types	2	3
Water closet		
(a) with flush tank	3	4
(b) with direct flush	3	6
Column 1	2	3

### 7.4.10. Hydraulic Loads

#### 7.4.10.1. Total Load on a Pipe

- (1) The hydraulic load on a pipe is the total load from,
- (a) every *fixture* that is connected to the system upstream of the pipe,
  - (b) every *fixture* for which provision is made for future connection upstream of the pipe, and
  - (c) all roofs and paved surfaces that drain into the system upstream of the pipe.

#### 7.4.10.2. Hydraulic Loads for Fixtures

- (1) The hydraulic load from a *fixture* that is listed in Table 7.4.9.3, is the number of *fixture units* set forth in the Table.
- (2) Except as provided in Sentence (1), the hydraulic load from a *fixture* that is not listed in Table 7.4.9.3, is the number of *fixture units* set forth in Table 7.4.10.2, for the *trap* of the *size* that serves the *fixture*.

**Table 7.4.10.2.**  
**Permitted Hydraulic Load from a Fixture Based on Size of Trap**  
Forming Part of Sentence 7.4.10.2.(2)

<i>Size of Trap, in.</i>	<i>Hydraulic Load, fixture units</i>
1¼	1
1½	2
2	3
2½	4
3	5
4	6
Column 1	2



## **Part 8**

### **Sewage Systems**

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## **Part 8**

### **Sewage Systems**

#### **Section 8.1. General**

##### **8.1.1. Scope**

###### **8.1.1.1. Scope**

(1) The scope of this Part shall be as described in Subsection 1.1.2. of Division A and applies to the design, *construction*, operation, and maintenance of *sewage systems*.

###### **8.1.1.2. Definitions**

(1) In this Part,

*Soil* means in-situ, naturally occurring, unconsolidated mineral or organic material, at the earth's surface that is at least 100 mm thick and capable of supporting plant growth, and includes material compacted or cemented by soil forming processes, but does not include displaced materials such as gravel dumps, mine spoils, or like deposits.

##### **8.1.2. Application**

###### **8.1.2.1. Classification of Systems**

- (1) All *sewage systems* shall be classed as one of the following:
- (a) Class 1 -- a chemical toilet, an incinerating toilet, a recirculating toilet, a self-contained portable toilet and all forms of privy including a *portable privy*, an *earth pit privy*, a *pail privy*, a *privy vault* and a composting toilet system,
  - (b) Class 2 -- a *greywater* system,
  - (c) Class 3 -- a cesspool,
  - (d) Class 4 -- a *leaching bed* system, or
  - (e) Class 5 -- a system that requires or uses a *holding tank* for the retention of *hauled sewage* at the site where it is produced prior to its collection by a *hauled sewage system*.

### 8.1.2.2. Operation and Maintenance

- (1) Operation and maintenance of *sewage systems* shall comply with Section 8.9.

### 8.1.3. Limitations

#### 8.1.3.1. Discharge

- (1) Except as provided in Sentences (2) to (6) the *sewage system* shall be designed and *constructed* to receive only *sanitary sewage* of domestic origin. (See Appendix A.)
- (2) Where laundry waste is not more than 20% of the total daily design *sanitary sewage* flow, it may discharge to a *sewage system*.
- (3) Where industrial process waste water is treated to the contaminant levels found in domestic *sanitary sewage* it may discharge to a *leaching bed* provided the *treatment unit* and *sewage system* are designed in accordance with good engineering practice. (See Appendix A.)
- (4) Where all kitchen waste water from a restaurant has passed through an operating grease interceptor, it may discharge to a *leaching bed system* provided the *sewage system* has been designed in accordance with good engineering practice.
- (5) Waste water from a kitchen equipped with a garbage grinder may be directed to the *sewage system* provided the system has been designed to accept such waste water.
- (6) Water softener and iron filter discharge may be directed to the *sewage system* provided the system has been designed to accept such discharges.
- (7) *Storm sewage* shall not be discharged into a *sewage system*.
- (8) The interceptor required in Sentence (4) shall have a minimum flow rate as required by Sentence 7.4.4.3.(8) using a 60 second drain down time.

## **Section 8.2. Design Standards**

### **8.2.1. General Requirements**

#### **8.2.1.1. Scope**

- (1) This Subsection applies to the design of *sewage systems*.

#### **8.2.1.2. Site Evaluation**

- (1) A site evaluation shall be conducted on every site where a new or replacement *sewage system* is to be installed
- (2) The *percolation time* shall be determined by either percolation tests or by classifying the *soil* according to the Unified Soil Classification System as described in Supplementary Standard SB-6.
- (3) Where the *percolation time* is determined by a percolation test, there shall be a minimum of 3 locations selected, suitably spaced to accurately evaluate the *leaching bed* area, with the highest *percolation time* of the tests being used. (See Appendix A.)

#### **8.2.1.3. Sewage System Design Flows** (See Appendix A.)

- (1) For *residential occupancies*, the total daily design *sanitary sewage* flow shall be at least the value in Column 2 as determined from Table 8.2.1.3.A.
- (2) For all other *occupancies*, the total daily design *sanitary sewage* flow shall be at least the value in Column 2 as determined from Table 8.2.1.3.B.
- (3) Where a *building* contains more than one establishment, the total daily design *sanitary sewage* flow shall be the sum of the total daily design *sanitary sewage* flow for each establishment.
- (4) Where an *occupancy* is not listed in Table 8.2.1.3.B., the highest of metered flow data from at least 3 similar establishments shall be acceptable for determining total daily design *sanitary sewage* flow.

**Table 8.2.1.3.A.**  
**Residential Occupancy**  
 Forming Part of Sentence 8.2.1.3.(1)

<i>Residential Occupancy</i>	<i>Volume, litres</i>
Apartments, Condominiums, Other Multi-family Dwellings - per person <sup>(1)</sup>	275
Boarding Houses	
(a) Per person,	
i) with meals and laundry facilities, or,	200
ii) without meal or laundry facilities, and	150
(b) Per non-resident staff per 8 hour shift	40
Boarding School - per person	300
Dwellings	
(a) 1 bedroom dwelling	750
(b) 2 bedroom dwelling	1100
(c) 3 bedroom dwelling	1600
(d) 4 bedroom dwelling	2000
(e) 5 bedroom dwelling	2500
(f) Additional flow for <sup>(2)</sup>	
i) each bedroom over 5,	500
ii) A) each 10 m <sup>2</sup> (or part of it) over 200 m <sup>2</sup> up to 400 m <sup>2</sup> <sup>(3)</sup> ,	100
B) each 10 m <sup>2</sup> (or part of it) over 400 m <sup>2</sup> up to 600 m <sup>2</sup> <sup>(3)</sup> , and	75
C) each 10 m <sup>2</sup> (or part of it) over 600 m <sup>2</sup> <sup>(3)</sup> , or	50
iii) each fixture unit over 20 fixture units	50
Hotels and Motels (excluding bars and restaurants)	
(a) Regular, per room	250
(b) Resort hotel, cottage, per person	500
(c) Self service laundry, add per machine	2500
Work Camp/Construction Camp, semi-permanent per worker	250
Column 1	2

**Notes to Table 8.2.1.3.A.:**

- (1) The *occupant load* shall be calculated using Subsection 3.1.17.
- (2) Where multiple calculations of sewage volume is permitted the calculation resulting the highest flow shall be used in determining the design daily *sanitary sewage* flow.
- (3) Total finished area, excluding the area of the finished *basement*.

**Table 8.2.1.3.B.**  
**Other Occupancies**  
 Forming Part of Sentence 8.2.1.3.(2)

Establishments <sup>(1)</sup>	Volume, litres
Airports, Bus Terminals, Train Stations, Dock/Port Facilities (Food Services excluded)	
(a) Per passenger, and	20
(b) Per employee per 8 hour shift	40
Assembly Hall - per seat	
(a) No food service, or	8
(b) Food service provided	36
Barber Shop/Beauty Salon - per service chair	650
Bowling Alleys (Food Service not included) - per lane	400
Churches and Similar Places of Worship - per seat	
(a) No kitchen facilities, or	8
(b) Kitchen facilities provided	36
Country Club (excluding Food Service)	
(a) Per resident,	375
(b) Per employee per 8 hour shift, and	50
(c) Per member or patron	40
Day Care Facility per person (staff and children)	75
Dentist Office	
(a) Per wet service chair, and	275
(b) Per dry service chair	190
Doctors Office	
(a) Per practitioner, and	275
(b) Per employee per 8 hour shift	75
Factory (excluding process or cleaning waters) - per employee per 8 hour shift	
(a) No showers, or	75
(b) Including showers	125
Column 1	2

**Table 8.2.1.3.B. (Cont'd)**  
**Other Occupancies**  
 Forming Part of Sentence 8.2.1.3.(2)

Establishments <sup>(1)</sup>	Volume, litres
Flea Markets <sup>(2)</sup> (open not more than 3 days per week)	
(a) Per non-food service vendor space,	60
(b) Per food service establishment / 9.25 m <sup>2</sup> of floor space, and	190
(c) Per limited food service outlet	95
Food Service Operations	
(a) Restaurant (not 24 hour), per seat	125
(b) Restaurant (24 hour) per seat	200
(c) Restaurant on controlled access highway, per seat	400
(d) Paper service restaurant, per seat	60
(e) Donut shop, per seat	400
(f) Bar and cocktail lounge, per seat	125
(g) Drive-in restaurant per parking space	60
(h) Take-out restaurant (no seating area)	
i) per 9.25 m <sup>2</sup> of floor area, and	190
ii) per employee per 8 hour shift	75
(i) Cafeteria - per meal	12
(j) Food outlet	
i) excluding delicatessen, bakery and meat department, per 9.25 m <sup>2</sup> of floor space,	40
ii) per 9.25 m <sup>2</sup> of delicatessen floor space	190
iii) per 9.25 m <sup>2</sup> of bakery floor space	190
iv) per 9.25 m <sup>2</sup> of meat department floor space, and	380
v) per water closet	950
Hospitals - per bed	
(a) Including laundry facilities, or	750
(b) Excluding laundry facilities	550
Nursing Homes, Rest Homes, etc. - per bed	450
Column 1	2



**Table 8.2.1.3.B. (Cont'd)**  
**Other Occupancies**  
 Forming Part of Sentence 8.2.1.3.(2)

Establishments <sup>(1)</sup>	Volume, litres
Office Building <sup>(2)</sup>	
(a) Per employee per 8 hour shift, or	75
(b) Per each 9.3 m <sup>2</sup> of floor space	75
Public Parks	
(a) With toilets only per person, or	20
(b) With bathhouse, showers, and toilets per person	50
Recreational Vehicle or Campground Park	
(a) Per site without water or sewer hook-up, or	275
(b) Per site with water and sewer hook-up	425
Schools - per student	
(a) Day school,	30
(b) With showers,	30
(c) With cafeteria, and	30
(d) Per non-teaching employee per 8 hour shift	50
Service Stations (no vehicle washing) <sup>(3)</sup>	
(a) Per water closet, and	950
i) per fuel outlet <sup>(4)</sup> , or	560
ii) per vehicle served	20
Shopping Centre (excluding food and laundry) - per 1.0 m <sup>2</sup> of floor space	5
Stadiums, Race Tracks, Ball Parks - per seat	20
Stores <sup>(5)</sup>	
(a) Per 1.0 m <sup>2</sup> of floor area, or	5
(b) Per water closet	1230
Swimming and Bathing Facilities (Public) - per person	40
Theatres	
(a) Indoor, auditoriums per seat,	20
(b) Outdoor, drive-ins per space, or	40
(c) Movie theatres per seat	15
Column 1	2

**Table 8.2.1.3.B. (Cont'd)**  
**Other Occupancies**  
 Forming Part of Sentence 8.2.1.3.(2)

Establishments <sup>(1)</sup>	Volume, litres
Veterinary Clinics	
(a) Per practitioner,	275
(b) Per employee per 8 hour shift, and	75
(c) Per stall, kennel, or cage if floor drain connected	75
Warehouse	
(a) Per water closet, and	950
(b) Per loading bay	150
Column 1	2

**Notes to Table 8.2.1.3.B.:**

- (1) The *occupant load* shall be calculated using Subsection 3.1.17.
- (2) Flea markets open more than 3 days per week shall be assessed using the volumes stated under the heading "Stores".
- (3) Where multiple calculations of *sanitary sewage* volume is permitted the calculation resulting in the highest flow shall be used in determining the design daily *sanitary sewage* flow.
- (4) The number of fuel outlets is considered the maximum number of gas nozzles that could be in use at the same time.

**8.2.1.4. Clearances** (See Appendix A.)

(1) Unless it can be shown to be unnecessary, where the *percolation time* is 10 minutes or greater, the location of all components within a *sewage system* shall be in conformance with the clearances listed in Articles 8.2.1.5. or 8.2.1.6.

(2) Unless it can be shown to be unnecessary, where the *percolation time* is less than 10 minutes, the clearances listed in Articles 8.2.1.5. and 8.2.1.6. for wells, lakes, ponds, reservoirs, rivers, springs or streams shall be increased to compensate for the lower *percolation time*.

(3) No *building* shall be *constructed* closer to any part of a *sewage system* than the clearances listed in Articles 8.2.1.5. or 8.2.1.6.

(4) If more than one *sewage system* is located on a lot or parcel of land, there shall be no overlap of any part of the systems.

### 8.2.1.5. Clearance Distances for Class 1, 2 and 3 Sewage Systems

(1) Except as provided in Sentences 8.2.1.4.(1) and (2), no Class 1, 2, or 3 *sewage system* shall have a horizontal distance of less than that permitted by Table 8.2.1.5.

**Table 8.2.1.5.**  
**Clearance Distances for Sewage Systems**  
Forming Part of Sentence 8.2.1.5.(1)

Clearance Distances for Class 1, 2 and 3 Sewage Systems				
<i>Sewage System</i>	Minimum horizontal distance in metres from a well with watertight casing to a depth of at least 6 m	Minimum horizontal distance in metres from a spring used as a source of <i>potable</i> water or well other than a well with a water tight casing to a depth of at least 6 m	Minimum horizontal distance in metres from a lake, river, pond, stream, reservoir, or a spring not used as a source of <i>potable</i> water	Minimum horizontal distance in metres from a property line
<i>Earth Pit Privy</i>	15	30	15	3
<i>Privy Vault</i> <i>Pail Privy</i>	10	15	10	3
<i>Greywater System</i>	10	15	15	3
<i>Cesspool</i>	30	60	15	3
Column 1	2	3	4	5

### 8.2.1.6. Clearances for a Class 4 or 5 Sewage System

(1) Except as provided in Sentences 8.2.1.4.(1) and (2), a *treatment unit* shall not be located closer than the minimum horizontal distances as set out in Table 8.2.1.6.A.

(2) Except as provided in Sentences 8.2.1.4.(1) and (2), a *distribution pipe* shall not be located closer than the minimum horizontal distances set out in Table 8.2.1.6.B. and these distances shall be increased when required by Sentence 8.7.4.2.(9).

(3) Except as provided in Sentences 8.2.1.4.(1) and (2), a *holding tank* shall not be located closer than the minimum horizontal distances set out in Table 8.2.1.6.C.

**Table 8.2.1.6.A.**  
**Minimum Clearances for Treatment Units**  
 Forming Part of Sentence 8.2.1.6.(1)

Object	Minimum Clearance, m
Structure	1.5
Well	15
Lake	15
Pond	15
Reservoir	15
River	15
Spring	15
Stream	15
Property Line	3
Column 1	2

**Table 8.2.1.6.B.**  
**Minimum Clearances for Distribution Piping**  
 Forming Part of Sentence 8.2.1.6.(2)

Object	Minimum Clearance, m
Structure	5
Well with a watertight casing to a depth of 6 m	15
Any other well	30
Lake	15
Pond	15
Reservoir	15
River	15
Spring not used as a source of <i>potable</i> water	15
Stream	15
Property Line	3
Column 1	2

**Table 8.2.1.6.C.**  
**Minimum Clearances for Holding Tanks**  
 Forming Part of Sentence 8.2.1.6.(3)

Object	Minimum Clearance, m
Structure	1.5
Well with a watertight casing to a depth of at least 6 m	15
Any other well	15
Spring	15
Property Line	3
Column 1	2

## **8.2.2. Treatment and Holding Tanks**

### **8.2.2.1. Application**

(1) This Subsection applies to any tank used in a *sewage system* for collecting, treating, holding or storing *sanitary sewage*.

#### **8.2.2.2. Tanks**

(1) Subject to Sentence (3), a tank that is used as a *treatment unit* in a Class 4 *sewage system* or a *holding tank* in a Class 5 *sewage system* shall conform to the requirements of CSA B66, "Design, Material, and Manufacturing Requirements for Prefabricated Septic Tanks and Sewage Holding Tanks".

(2) Subject to Sentence (3), material standards, access and *construction* methods and practices for a tank used for other Classes of *sewage systems* shall conform to the requirements of CSA B66, "Design, Material, and Manufacturing Requirements for Prefabricated Septic Tanks and Sewage Holding Tanks".

(3) Tanks referred to in Sentences (1) and (2) are not required to conform to the requirements of Clause 10.2.(j) of CSA B66, "Design, Material, and Manufacturing Requirements for Prefabricated Septic Tanks and Sewage Holding Tanks".

(4) Sentence (2) does not apply to a tank that is an integral part of a prefabricated Class 1 *sewage system*.

- (5) Access openings shall be located to facilitate the pumping of all compartments and the servicing of the inlet and outlet of each compartment not accessible by removal of the tank top or part of it.
- (6) A tank shall not be covered by *soil* or *leaching bed fill* having a depth greater than the maximum depth of burial that the tank is designed to withstand.
- (7) A tank shall be securely anchored when located in an area subject to flooding or where *ground water* levels may cause hydrostatic pressures.

### 8.2.2.3. Septic Tanks

- (1) The minimum *working capacity* of a *septic tank* shall be the greater of 3 600 L and,
  - (a) in *residential occupancies*, twice the daily design *sanitary sewage* flow, or
  - (b) in *non-residential occupancies*, three times the daily design *sanitary sewage* flow.
- (2) Every *septic tank* shall be *constructed* in such a manner that any *sanitary sewage* flowing through the tank will pass through at least 2 compartments.
- (3) The *working capacity* of the compartments required in Sentence (2) shall be sized such that,
  - (a) the first compartment is at least 1.3 times the daily design *sanitary sewage* flow but in no case less than 2 400 L, and
  - (b) each subsequent compartment shall be at least 50% of the first compartment.
- (4) Where multiple tanks are to be used to meet the requirements of Sentences (2) and (3), the tanks shall be connected in series such that,
  - (a) the first tank in the series shall have at least a capacity as calculated in Clause (3)(a), however at no time shall a tank having a *working capacity* of less than 3 600 L be used,
  - (b) all additional tanks after the first tank, excluding pump or dosing tanks shall have at least a *working capacity* equal to Clause (3)(b),
  - (c) the pipe between the outlet of one tank and the inlet of the next tank in the series shall have a minimum slope of 2 per cent,
  - (d) there shall be no partitions in the tank except where a partition is required to maintain the structural integrity of the tank, in which case openings within the partition shall be provided to allow the free movement of *sanitary sewage* throughout the tank, and

- (e) all piping between tanks shall be continuous and shall be connected to the tank through the use of flexible watertight seals that will permit differential movement between the tanks.
- (5) Partitions separating the *septic tank* into compartments shall extend at least 150 mm above the liquid level at the outlet, and there shall be one or more openings through or above the partition.
- (6) The openings required between compartments referred to in Sentence (2) shall have a total cross-sectional area of at least three times the area of the inlet pipe and be located between the top and a level 150 mm above the liquid level at the outlet to provide for the free flow of air between compartments.
- (7) *Sanitary sewage* shall pass from one compartment to another of the *septic tank* by means of either,
  - (a) a device similar to that described in CSA B66, "Design, Material, and Manufacturing Requirements for Prefabricated Septic Tanks and Sewage Holding Tanks" for outlet devices, or
  - (b) through two or more openings through the partition located in a horizontal line, and evenly spaced across the width of the partition, centred at approximately 40% of the liquid depth below the surface of the liquid, and having a total area of between three and five times that of the cross-sectional area of the inlet pipe.
- (8) A *septic tank* shall be of such design and *construction* as will permit the collection and holding of *sanitary sewage* in it to a depth of not less than 1 200 mm except that a depth of not less than 900 mm is permitted where the excavation is in rock, or to avoid rupture or displacement of the tank due to *ground water* pressure.
- (9) Except as provided in Sentences (10) and (11), every *septic tank* shall be installed in such a manner that the access openings are located not more than 300 mm below the ground surface.
- (10) Where the top of the *septic tank* is located more than 300 mm below the ground surface, it shall be equipped with risers that extend from the access opening of the *septic tank* to within 300 mm of the ground surface.

(11) Where risers are used they shall conform to the requirements of CSA B66, "Design, Material, and Manufacturing Requirements for Prefabricated Septic Tanks and Sewage Holding Tanks", and shall have adequate access openings to allow for regular maintenance of the *septic tank*.

#### 8.2.2.4. Holding Tanks

(1) All *holding tanks* shall be of such design and *construction* as will allow the complete removal of solid matter that can be expected to settle in the *holding tank* through an apparatus or device suitable for allowing the contents of the *holding tank* to be removed from the *holding tank*.

(2) A *holding tank* shall have a *working capacity* of not less than 9 000 L.

(3) Where two or more tanks are used to meet the requirement of Sentence (2), they shall be deemed to be one *holding tank* provided they are connected in such a manner as will allow the *sanitary sewage* contained in them to flow between the tanks.

(4) The *working capacity* of the tanks described in Sentence (3) shall not include any portion of any tank that cannot be completely drained due to the manner in which the connections are made.

### Section 8.3. Class 1 Sewage Systems

#### 8.3.1. General Requirements

##### 8.3.1.1. Scope

(1) This Section applies to the *construction* of a Class 1 *sewage system*.

##### 8.3.1.2. Application

(1) Except as provided in Sentence (2), a Class 1 *sewage system* shall be designed to receive only human body waste for disposal.

r<sub>1</sub> (2) Where the *sewage system* is specifically designed for the biological decomposition of non-waterborne biodegradable kitchen wastes or requires the addition of small quantities of plant matter to improve the decomposition of human body waste, it may receive such wastes in addition to human body waste.



- r<sub>1</sub> (3) Where the *sewage system* is designed with a drain for the removal of excess liquid, then the *sewage system* shall drain to a Class 3, 4, or 5 *sewage system*.

### **8.3.2. Superstructure Requirements**

#### **8.3.2.1. Construction Requirements**

- (1) A privy as described in Subsections 8.3.3. to 8.3.5. shall be enclosed with a superstructure that,
  - (a) is *constructed* of strong durable weatherproof materials,
  - (b) has a solid floor supported by a sill *constructed* of treated timber, masonry or other material of at least equal strength and durability,
  - (c) is easily sanitized,
  - (d) unless it is equipped solely as a urinal, is equipped with one or more seats each having a cover and being supported by an enclosed bench or riser that is lined with an impervious material on all interior vertical surfaces,
  - (e) is equipped with a self-closing door,
  - (f) has one or more openings for purposes of ventilation, all of which are screened,
  - (g) has a ventilation duct that is screened at the top end and that extends from the underside of the bench or riser to a point above the roof of the superstructure, and
  - (h) shall not have any openings for the reception of human body waste, other than urinals and those *constructed* in accordance with Clause (1)(d).

### **8.3.3. Earth Pit Privy**

#### **8.3.3.1. Construction Requirements**

- (1) An *earth pit privy* shall be *constructed* in the following manner:
  - (a) the bottom of the pit shall be at least 900 mm above the *high ground water table*,
  - (b) the sides of the pit shall be reinforced so as to prevent collapse of them,
  - (c) the pit shall be surrounded on all sides and on its bottom by not less than 600 mm of *soil* or *leaching bed fill*, and
  - (d) the *soil* or *leaching bed fill* around the base of the sides of the superstructure of the *earth pit privy* shall be raised or mounded to a height of at least 150 mm above ground level.

### 8.3.4. Privy Vaults and Pail Privy

#### 8.3.4.1. Construction Requirements

- (1) A privy-vault or a *pail privy* shall be *constructed* in the following manner:
  - (a) the container or structure that is to be used for the holding or storage of *sanitary sewage* shall be watertight and made of a material that can be easily cleaned,
  - (b) the *soil or leaching bed fill* around the base of the sides of the superstructure shall be raised or mounded to a height of at least 150 mm above ground level, and
  - (c) the surface of the ground in the area of the privy-vault or *pail privy* shall be so graded that surface drainage will be diverted away from the privy.

### 8.3.5. Portable Privy

#### 8.3.5.1. Construction Requirements

- (1) A *portable privy* shall be *constructed* in the following manner:
  - (a) the *portable privy* shall have a watertight receptacle that shall be suitable for the holding and storage of any *sanitary sewage* deposited in it,
  - (b) the receptacle for the holding and storage of sewage shall be designed and *constructed* in such a manner as to allow it to be easily emptied and cleaned, and
  - (c) the *portable privy* shall be *constructed* of such material and in such a manner that it can withstand the stresses to which it will be subjected during its transportation to and from sites where it is to be used and during loading and unloading from vehicles used for the transportation of the *portable privy* to and from sites where it is to be used.

## Section 8.4. Class 2 Sewage Systems

### 8.4.1. General Requirements

#### 8.4.1.1. Scope

- (1) This Section applies to the *construction* of a Class 2 *sewage system*.

#### 8.4.1.2. Application

- (1) A Class 2 *sewage system* shall be designed only for the treatment and disposal of *greywater*.
- (2) The total daily design flow for a Class 2 *sewage system* shall be calculated based on the *fixtures* discharging to the system as follows:
  - (a) 200 L per *fixture unit* where there is a supply of pressurized water, and
  - (b) 125 L per *fixture unit* where there is no supply of pressurized water.

#### 8.4.2. Design and Construction Requirements

##### 8.4.2.1. Construction Requirements

- (1) The bottom of the pit shall be at least 900 mm above the *high ground water table*.
- (2) The pit shall be *constructed* in such a manner as to prevent the collapse of its sidewalls.
- (3) Any material used to support or form the sidewalls of the pit shall be an open jointed material of a type that will permit *leaching* from the pit.
- (4) The pit shall be provided with a tight, strong cover that shall remain over the pit except when it is necessary to remove it for purposes of adding *greywater* to or removing *greywater* from the pit or for purposes of maintenance of the pit.
- (5) The earth around the perimeter of the pit shall be raised or mounded to a height of at least 150 mm above ground level.
- (6) The surface of the ground in the area of the pit shall be so graded that surface drainage in the area will be diverted away from the pit.
- (7) The pit shall be surrounded on all sides and on its bottom by at least 600 mm of *soil* having a *percolation time* of less than 50 minutes.

##### 8.4.2.2. Maximum Sewage Flow

- (1) A Class 2 *sewage system* shall not be *constructed* where the daily design *greywater* flow to the system exceeds 1 000 L/day.

### 8.4.2.3. Sizing

(1) A Class 2 *sewage system* shall be designed and *constructed* so that the loading rate to the side walls shall be not more than the value calculated using

$$L_R = \frac{400}{T}$$

where,

$L_R$  = loading rate of the sidewalls in litres per day/m<sup>2</sup>, and  
 $T$  = percolation time.

## Section 8.5. Class 3 Sewage Systems

### 8.5.1. General Requirements

#### 8.5.1.1. Scope

(1) This Section applies to the *construction* of a Class 3 *sewage system*.

#### 8.5.1.2. Application

(1) A Class 3 *sewage system* shall not be *constructed* where the daily design *sanitary sewage* flow to the system exceeds 1 000 L/day.

(2) A Class 3 *sewage system* shall be designed to receive only the contents of a Class 1 *sewage system* or *effluent* from a Class 1 *sewage system* for disposal.

### 8.5.2. Design and Construction Requirements

#### 8.5.2.1. Construction Requirements

(1) The bottom of the cesspool shall be at least 900 mm above the *high ground water table*.

(2) The cesspool shall be *constructed* in such a manner as to prevent the collapse of its sidewalls.



- (3) Any material used to support or form the sidewalls of the cesspool shall be an open jointed material of a type that will permit *leaching* from the cesspool.
- (4) The cesspool shall be provided with a tight strong cover that shall remain over the cesspool except when it is necessary to remove it for the purposes of adding *sanitary sewage* to or removing *sanitary sewage* from the cesspool or for purposes of maintenance of the cesspool.
- (5) Where the cesspool extends to the ground surface, the cover required in Sentence (4) shall be lockable.
- (6) The *soil* or *leaching bed fill* around the perimeter of the cesspool shall be raised or mounded to a height of at least 150 mm above ground level.
- (7) The surface of the ground in the area of the cesspool shall be graded such that surface drainage in the area will be diverted away from the cesspool.
- (8) The cesspool shall be surrounded on all sides and on its bottom by at least 600 mm of *soil* or *leaching bed fill*, except the top where the cesspool extends to the surface of the ground.

## **Section 8.6. Class 4 Sewage Systems**

### **8.6.1. General Requirements**

#### **8.6.1.1. Scope**

- (1) This Section applies to the *construction* of a Class 4 sewage system.

#### **8.6.1.2. General Requirements**

- (1) The *treatment unit* shall be connected to a *leaching bed* constructed in accordance with the requirements of Section 8.7.

#### **8.6.1.3. Pumps and Siphons**

- (1) Where the total length of *distribution pipe* required is 150 m or more, the *sewage system* shall have at least one pump or a siphon contained in a dosing tank that may be a separate compartment within the tank structure, for distribution of the *effluent*.

- (2) Alternating siphons shall not be installed in a *sewage system*.
- (3) Where 2 or more pumps are employed within a dosing tank, the pumps shall be designed such that the pumps alternate dosing, and dosing shall continue in the event that one pump fails.
- (4) Where a pump or siphon is required, the pump or siphon shall be designed to discharge a dose of at least 75% of the internal volume of the *distribution pipe* within a time period not exceeding fifteen minutes.

### 8.6.2. Treatment Units

#### 8.6.2.1. Septic Tank Systems

- (1) An *effluent* filter shall be installed in the outlet flow path of every *septic tank* that discharges *effluent* to a *leaching bed*.
- (2) The *septic tank effluent* filter required by Sentence (1) shall conform to the requirements of NSF/ANSI 46, "Evaluation of Components and Devices Used in Wastewater Treatment Systems", and shall be sized and installed in accordance with the manufacturer's recommendations.
- (3) A secured access opening to allow for regular maintenance of the *effluent* filter shall be provided at the ground surface.

#### 8.6.2.2. Other Treatment Units

- (1) A *treatment unit* other than those described in Article 8.6.2.1. and Sentence (2) shall be designed such that *effluent* does not exceed the maximum concentrations stipulated in Column 2 of Table 8.6.2.2.A.
- (2) A *treatment unit* that is used in conjunction with a *leaching bed* constructed as *shallow buried trenches* shall be designed such that the *effluent* does not exceed the maximum concentrations stipulated in Column 3 of Table 8.6.2.2.A.
- (3) All *treatment units* referred to in Sentences (1) and (2) that contain mechanical components shall be equipped with an audible and visual warning alarm so located to warn the occupants of the *building* served or the operator of the *treatment unit* of a malfunction in the operation of the *treatment unit*.

**Table 8.6.2.2.A.**  
**Other Treatment Unit Effluent Quality Criteria**  
 Forming Part of Sentence 8.6.2.2.(1), (2) and (5)

Parameter	Secondary Effluent <sup>(1)</sup>	Tertiary Effluent <sup>(1)</sup>
BOD <sub>5</sub>	40	15
CBOD <sub>5</sub>	30	10
Suspended Solids	30	10
Column 1	2	3

**Note to Table 8.6.2.2.A.:**

(1) Maximum concentration based on 30 day averages in milligrams per litre (mg/L)

(4) All *treatment units* referred to in Sentences (1) and (2) shall permit the sampling of the *effluent*.

(5) A *treatment unit* described in the Supplementary Standard SB-5 is deemed to comply with the requirements of Table 8.6.2.2.A.

(6) Every manufacturer or distributor of a *treatment unit* shall provide, for each model sold, printed literature that describes the unit in detail and provides complete instructions regarding the operation, servicing, and maintenance requirements of the unit and its related components necessary to ensure the continued proper operation in accordance with the original design and specifications.

## **Section 8.7. Leaching Beds**

### **8.7.1. General Requirements**

#### **8.7.1.1. Application**

(1) This Section is applicable to the *construction of leaching beds*.

### **8.7.2. Construction Requirements**

#### **8.7.2.1. General Requirements**

- (1) A *leaching bed* shall not be located,
  - (a) in an area that has an average slope that exceeds one unit vertically to four units horizontally,



- (b) in *soil* or *leaching bed fill* having a *percolation time*,
  - (i) less than one minute, or greater than 125 minutes if *constructed* as a *shallow buried trench*, or
  - (ii) less than one minute, or greater than 50 minutes for all other *leaching beds*, or
- (c) in or on an area that is subject to flooding that may be expected to cause damage to the *leaching bed* or impair the operation of the *leaching bed*.

(2) A *leaching bed* shall not be covered with any material having a hydraulic conductivity less than 0.01 m/day.

(3) The surface of the *leaching bed* shall be shaped to shed water and together with the side slopes of any raised portion, shall be protected against erosion in such a manner as to not inhibit the evaporation and transpiration of waters from the *soil* or *leaching bed fill*, and to not cause plugging of the *distribution pipe*.

(4) No part of a *leaching bed* shall be sloped steeper than 1 unit vertically to 4 units horizontally.

(5) A *leaching bed* shall be designed to be protected from compaction or any stress or pressure that may result in,

- (a) the impairment or destruction of any pipe in the *leaching bed*, or
- (b) the *soil* or *leaching bed fill*.

## 8.7.3. Absorption Trench Construction

### 8.7.3.1. Length of Distribution Pipe

- (1) The total length of *distribution piping* shall,
  - (a) not be less than 30 m when *constructed* as a *shallow buried trench*, or
  - (b) not be less than 40 m for any other *absorption trench*.

(2) Except as provided in Sentences (1), (3), and (4) every *leaching bed constructed* by means of *absorption trenches* shall have a total length of *distribution pipe* not less than the value determined by the formula,

$$L = \frac{QT}{200}$$



where,

- L = total length of *distribution pipe* in metres  
 Q = the total daily design *sanitary sewage* flow in litres  
 T = the design *percolation time*.

(3) Except as provided in Sentence (1), where the *treatment unit* is described in Article 8.6.2.2., the *leaching bed* may have a total length of *distribution pipe* not less than the value determined by the formula,

$$L = \frac{QT}{300}$$

where,

- L = total length of *distribution pipe* in metres  
 Q = the total daily design *sanitary sewage* flow in litres  
 T = the design *percolation time*.

(4) Except as provided in Sentence (1), where the *leaching bed* is constructed as a *shallow buried trench*, the total length of the *distribution pipe* shall not be less than the value determined by Table 8.7.3.1.

**Table 8.7.3.1.**  
**Length of Shallow Buried Trench**  
 Forming Part of Sentence 8.7.3.1.(4)

<i>Percolation Time, T of soil, min/cm</i>	<i>Trench Length, m</i>
1 < T < 20	Q/75
20 < T < 50	Q/50
50 < T < 125	Q/30
Column 1	2

where,

- Q = the total daily design *sanitary sewage* flow in litres, and  
 T = the design *percolation time*.

### 8.7.3.2. Absorption Trenches

- (1) Except as provided in Sentence (2), *absorption trenches* shall be,
  - (a) approximately the same length and not more than 30 m in length,
  - (b) not less than 500 mm and not more than 1 000 mm in width,
  - (c) not less than 300 mm and not more than 900 mm in depth,
  - (d) centred not less than 1 600 mm apart,
  - (e) located so that the bottom of the trench is not less than 900 mm above the *high ground water table*, rock or soil with a *percolation time* more than 50 minutes, and
  - (f) backfilled, after the installation of the *distribution pipe* with *leaching bed fill*, so as to ensure that after the *leaching bed fill* settles, the surface of the *leaching bed* will not form any depressions.
- (2) *Absorption trenches constructed as shallow buried trenches* shall be,
  - (a) approximately the same length and not more than 30 m in length,
  - (b) not less than 300 mm and not more than 600 mm in width,
  - (c) not less than 300 mm and not more than 600 mm in depth,
  - (d) centred not less than 2 000 mm apart,
  - (e) not less than 900 mm at all points on the bottom of the *absorption trench* above the *high ground water table* or rock, and
  - (f) backfilled, after the installation of the *distribution pipe* with *leaching bed fill*, so as to ensure that after the *leaching bed fill* settles, the surface of the *leaching bed* will not form any depressions.

### 8.7.3.3. Distribution Pipe

- (1) Except for *shallow buried trenches*, the *distribution pipe* used in the *construction* of a *leaching bed* shall be,
  - (a) of not less than 3 in. trade size for gravity flow systems, or 1 in. trade size for pressurized systems,
  - (b) installed with a uniform downward slope from the inlet with a drop of not less than 30 mm and not more than 50 mm for each 10 m of *distribution pipe*, and
  - (c) installed within a layer of stone conforming to Sentence (5).
- (2) Prior to backfilling, the stone layer required in Clause (1)(c) shall be protected in such a manner so as to prevent *soil*, or *leaching bed fill* from entering the stone by completely covering with,
  - (a) untreated building paper, or
  - (b) a permeable geo-textile fabric.
- (3) Every pressurized *distribution pipe* shall be self-draining so as to prevent freezing of its contents.

- (4) Every pressurized *distribution pipe* shall have orifices of at least 3 mm in diameter, spaced equally along the length of the pipe.
- (5) The layer of stone required by Clause (1)(c) shall,
- (a) be comprised of washed septic stone, free of fine material, with gradation conforming to Table 8.7.3.3.A.,
  - (b) be not less than 500 mm in width,
  - (c) extend not less than 150 mm below the distribution pipe, and
  - (d) extend not less than 50 mm above the distribution pipe.

**Table 8.7.3.3.A.**
**Septic Stone**

Forming Part Of Sentence 8.7.3.3.(5)

Gradation of Septic Stone	
Particle Size	Percent Passing
53 mm	100
19 mm	0-5
75 $\mu$ m	0-1
Column 1	2

**8.7.4. Fill Based Absorption Trenches**
**8.7.4.1. Loading Requirements**

- (1) The area described in Sentence 8.7.4.2.(1) shall be designed such that the *loading rate* does not exceed, for *soil* having a *percolation time* set out in Column 1 of Table 8.7.4.1.A., the maximum value set out opposite it in Column 2 of Table 8.7.4.1.A.

**Table 8.7.4.1.A.**
**Loading Rates for Fill Based Absorption Trenches and Filter Beds**

Forming Part of Sentences 8.7.4.1.(1) and 8.7.5.2.(2)

Percolation Time (T) of Soil, min/cm	Loading Rates, (L/m <sup>2</sup> )/day
1 < T < 20	10
20 < T < 35	8
35 < T < 50	6
T > 50	4
Column 1	2

**8.7.4.2. Construction Requirements** (See Appendix A.)

- (1) A *leaching bed* comprised of *absorption trenches* may be constructed in *leaching bed fill* if unsaturated soil or *leaching bed fill* complying with Clause 8.7.2.1.(1)(b) extends,
  - (a) to a depth of at least 250 mm over the area covered by the *leaching bed fill*, and
  - (b) for at least 15 m beyond the outer *distribution pipes* in any direction in which the *effluent* entering the soil or *leaching bed fill* will move horizontally.
- (2) If the unsaturated soil or *leaching bed fill* described in Sentence (1) has a *percolation time* greater than 15 minutes, any *leaching bed fill* added to form the *leaching bed* shall have a *percolation time* not less than 75% of the *percolation time* of the unsaturated soil or *leaching bed fill*.
- (3) *Leaching bed fill* that does not meet the requirements of Sentence (2) may be used to form the *leaching bed* if,
  - (a) the distance from the bottom of the *absorption trench* to native soil is not less than 900 mm, or
  - (b) where the distance from the bottom of the *absorption trench* to native soil is less than 900 mm, the *percolation time* of the least permeable soil or *leaching bed fill* within 900 mm from the bottom of the *absorption trench* is used to calculate the length of the *distribution pipe* under Article 8.7.3.1.
- (4) Sentence (2) does not apply to any *leaching bed fill* added as backfill above the stone layer in which the *distribution pipe* is located.
- (5) All *leaching bed fill* added shall be stabilized against erosion.
- (6) The site to which the *leaching bed fill* is added shall be generally clear of vegetation.
- (7) The *leaching bed fill* that is added shall be compacted in layers in such a manner as to avoid uneven settlement of the *distribution pipes*.
- (8) Any *distribution boxes*, *header lines*, *absorption trenches*, or *distribution pipes* shall be installed only after the *leaching bed fill* has been compacted in accordance with Sentence (7).
- (9) Except as provided in Sentence (10), the sides of the added *leaching bed fill* shall be sloped to ensure stability, but shall not be steeper than one unit vertically to four units horizontally.



(10) The side slope of the *leaching bed fill* may be increased up to one unit vertically to three units horizontally if measures are taken to prevent erosion and ensure stability of the *leaching bed fill*.

(11) The distances as set out in Column 2 of Table 8.2.1.6.B. shall be increased by twice the height that the *leaching bed* is raised above the original grade.

### 8.7.5. Filter Beds

#### 8.7.5.1. Application

(1) The total daily design *sanitary sewage* flow shall not exceed 5 000 L where the *treatment unit* is a *septic tank*, or 10 000 L where the *treatment unit* is described in Article 8.6.2.2.

#### 8.7.5.2. Loading Requirements

(1) The effective area of the surface of the filter medium in each filter bed shall be at least  $10 \text{ m}^2$  and not more than  $50 \text{ m}^2$ .

(2) The area described in Sentence 8.7.4.2.(1) shall be designed such that the *loading rate* does not exceed, for *soil* having a *percolation time* set out in Column 1 of Table 8.7.4.1.A., the maximum value set out opposite thereto in Column 2 of Table 8.7.4.1.A.

(3) Except as provided in Sentence (5), where the total daily design *sanitary sewage* flow does not exceed 3 000 L, the effective area shall be such that the loading on the surface of the filter medium does not exceed  $75 \text{ L/m}^2$  per day.

(4) Except as provided in Sentence (5), where the total daily design *sanitary sewage* flow exceeds 3 000 L,

- (a) the effective area shall be such that the loading on the surface of the filter medium does not exceed  $50 \text{ L/m}^2$  per day, and
- (b) the *leaching bed* shall be comprised of more than one filter bed, each of similar size and adjacent to each other.

(5) Where a *treatment unit* designed to produce *effluent* not exceeding the maximum concentrations stipulated in Column 2 of Table 8.6.2.2.A. is used in conjunction with a filter bed, the effective area shall be such that the loading on the surface of the filter medium does not exceed  $100 \text{ L/m}^2$  per day.

### 8.7.5.3. Construction Requirements

- (1) Sentences 8.7.4.2.(1), (2) and (4) to (11) apply to the *construction* of a filter bed.
- (2) The lines of *distribution pipe* shall be evenly spaced over the surface of the filter medium to which the *sanitary sewage* is applied. (See Appendix A.)
- (3) The filter medium shall have a minimum depth of 750 mm below the stone layer and shall be clean sand comprised of particles ranging in size between the limits of,
- (a) an effective size of 0.25 mm with a uniformity coefficient not less than 3.5,
  - (b) an effective size of 2.5 mm with a uniformity coefficient not greater than 1.5, and
  - (c) having a uniformity coefficient not greater than 4.5.
- (4) The filter medium shall be unsaturated for its entire depth.
- (5) Where there is more than one filter bed in a *leaching bed*, the filter beds shall be separated by at least 5 m between the *distribution pipes* of the filter beds.
- (6) The base of the filter medium shall extend to a thickness of at least 250 mm over an area meeting the requirements of the following formula:

$$A = \frac{QT}{850}$$

where,

- A = the area of contact in square metres between the base of the filter medium and the underlying *soil*,
- Q = the total daily design *sanitary sewage flow* in litres, and
- T = the lesser of 50 and the *percolation time* of the underlying *soil*.

- (7) The stone layer required by Clause 8.7.3.3.(1)(b) shall be not less than 900 mm above the *high ground water table*, rock or *soil* with a *percolation time* more than 50 minutes.



### 8.7.6. Shallow Buried Trenches

#### 8.7.6.1. Limitation on Installation

- (1) The design and installation of a *shallow buried trench* shall be carried out by a person competent in this field of work.

#### 8.7.6.2. Construction Requirements (See Appendix A.)

- (1) The *treatment unit* shall provide an *effluent* quality as required in Sentence 8.6.2.2.(2).
- (2) The *effluent* shall be distributed through a *pressurized distribution system* having a pressure head of not less than 600 mm when measured to the most distant point from the pump.
- (3) The pump chamber shall be sized to provide sufficient storage volume so that the *effluent* is evenly dosed on an hourly basis over a 24-hour period.
- (4) A *shallow buried trench* shall not be *constructed* unless the *soil* or *leaching bed fill* is sufficiently dry to resist the compaction and smearing during excavation.
- (5) Every *chamber* shall be as wide as the *shallow buried trench* in which it is contained, and the cross-sectional height of the *chamber* at its centre point shall not be less than half the width of the trench.
- (6) Every *chamber* shall contain only one *pressurized distribution pipe*.

## Section 8.8. Class 5 Sewage Systems

### 8.8.1. Application

#### 8.8.1.1. Prohibited Installation

- (1) Except as provided in Article 8.8.1.2., a Class 5 *sewage system* shall not be installed.

### 8.8.1.2. Acceptable Installation

- (1) A Class 5 *sewage system* may be installed in the following circumstances:
- (a) where the proposed use of the *sewage system* is for a temporary operation, excluding seasonal recreational use, not exceeding 12 months in duration,
  - (b) to remedy an unsafe *sewage system* where the remediation of the unsafe condition by the installation of a Class 4 *sewage system* is impracticable,
  - (c) to upgrade a *sewage system* serving an existing *building*, where upgrading through the use of a Class 4 *sewage system* is not possible due to lot size, site slope or clearance limitations, or
  - (d) as an interim measure for a lot or parcel of land until municipal sewers are available, provided that the municipality undertakes to ensure the continued operation of an approved *hauled sewage system* until the municipal sewers are available.
- (2) Where a Class 5 *sewage system* is installed, a written agreement for the disposal of *sanitary sewage* from the *sewage system* shall be entered into with a *hauled sewage system* operator.

### 8.8.2. General Requirements

#### 8.8.2.1. Construction Requirements

- (1) All Class 5 *sewage systems* shall be equipped with a device that shall produce an audible and visual warning alarm so located to warn that the *sewage system* is nearing capacity.
- (2) The device required in Sentence (1) shall be designed to provide suitable advance warning to the *building* occupants considering,
- (a) the total daily design *sanitary sewage* flow,
  - (b) the location of the Class 5 *sewage system*, and
  - (c) the response time of the *hauled sewage system* contractor.
- (3) Except as provided in Sentence (4) all *holding tanks* shall be provided with a vent that,
- (a) is not less than 3 inch trade size,



- (b) terminates at least,
    - (i) 300 mm above finished grade with a vent cap, or
    - (ii) 600 mm above finished grade with a vent cap when the *holding tank* is located in an area subject to flooding, and
  - (c) terminates at least 3.5 m away from any air inlet, window, or door.
- (4) A vent from a *holding tank* may connect into the *venting system* of the *building* served by the *holding tank* provided that,
- (a) the vent is not less than 3 in. trade size, and
  - (b) the installation of the vent shall conform to the requirements in Part 7.

### **8.8.2.2. Sizing of Holding Tanks**

- (1) All *holding tanks* used in residential dwellings shall have a minimum 7 day holding capacity based on the total daily design *sanitary sewage* flow.

## **Section 8.9. Operation and Maintenance**

### **8.9.1. General**

#### **8.9.1.1. Scope**

- (1) This Section applies to the operation and maintenance of all *sewage systems*.

#### **8.9.1.2. General Requirements for Operation and Maintenance**

- (1) Every *sewage system* shall be operated and maintained so that,
  - (a) the *sewage system* or any part of it shall not emit, discharge or deposit *sanitary sewage* or *effluent* onto the surface of the ground,
  - (b) *sanitary sewage* or *effluent* shall not emit, discharge, seep, leak or otherwise escape from the *sewage system* or any part of it other than from a place or part of the *sewage system* where the system is designed or intended to discharge the *sanitary sewage* or *effluent*, and
  - (c) except as provided in Sentence (2), *sanitary sewage* or *effluent* shall not emit, discharge, seep, leak or otherwise escape from the *sewage system* or any part of it into a piped water supply, well water supply, a watercourse, *ground water* or *surface water*.

- (2) Clause (1)(c) does not apply to the use of a *sewage system* designed and operated such that properly treated *effluent* is discharged into *soil*.

## **8.9.2. Operation**

### **8.9.2.1. Scope**

- (1) The requirement of this Subsection are in addition to the requirements of Subsection 8.9.1.

### **8.9.2.2. General**

- (1) Every *sewage system* shall be operated in accordance with,
- (a) the basis on which the *construction* and use of the *sewage system* was approved or required under this Act or predecessor legislation, as the case may be, and
  - (b) the requirements of the manufacturer of the *sewage system*.

### **8.9.2.3. Class 4 Sewage Systems**

- (1) Every Class 4 *sewage system* shall be operated in accordance with the literature required in Sentence 8.6.2.2.(6).
- (2) No person shall operate a *treatment unit* other than a *septic tank* unless the person has entered into an agreement whereby servicing and maintenance of the *treatment unit* and its related components will be carried out by a person who,
- (a) possesses a copy of the literature required by Sentence 8.6.2.2.(6), and
  - (b) is authorized by the manufacturer to service and maintain that type of *treatment unit*.
- (3) The person authorized by the manufacturer to service and maintain the *treatment unit* and who has entered into the agreement referred to in Sentence (2) with the person operating the *treatment unit* shall notify the *chief building official* if,
- (a) the agreement is terminated, or
  - (b) access for service and maintenance of the *treatment unit* is denied by the person operating the *treatment unit*.



#### 8.9.2.4. Shallow Buried Trenches

- (1) Every person operating a *treatment unit* that is designed and *constructed* to produce *effluent* described in Column 3 of Table 8.6.2.2.A. shall, at the intervals described in Sentence (2),
  - (a) take a grab sample of the effluent to determine whether it complies with the levels contained in Column 3 of Table 8.6.2.2.A. for BOD<sub>5</sub> and suspended solids,
  - (b) carry out the sampling required by Clause (1)(a) in accordance with the methods described in the APHA/AWWA/WEF, "Standard Methods for the Examination of Water and Wastewater", and
  - (c) promptly submit the results of the sampling required by Clause (1)(a) to the *chief building official*.
- (2) The sampling required by Clause (1)(a) shall be conducted,
  - (a) initially, once during the first 12 months after the *sewage system* was put into use, and
  - (b) thereafter, once during every 12 month period, at least 10 months and not more than 18 months after the previous sampling has been completed.

#### 8.9.2.5. Class 5 Sewage Systems

- (1) Every Class 5 *sewage system* shall be operated in accordance with the agreement referred to in Sentence 8.8.1.2.(2).
- (2) No Class 5 *sewage system* shall be operated once it is filled with *sanitary sewage* until such time as the *sanitary sewage* is removed from the *sewage system*.

#### 8.9.3. Maintenance

##### 8.9.3.1. Scope

- (1) The requirement of this Subsection are in addition to the requirements of Subsection 8.9.1.

### 8.9.3.2. General

- (1) Every *sewage system* shall be maintained so that,
  - (a) the *construction* of the *sewage system* remains in accordance with,
    - (i) the basis on which the *construction* and use of the *sewage system* was approved or required under this Act or predecessor legislation, as the case may be, and
    - (ii) the requirements of the manufacturer of the *sewage system*, and
  - (b) all components of the *sewage system* function in their intended manner.
- (2) The land in the vicinity of a *sewage system* shall be maintained in a condition that will not cause damage to, or impair the functioning of, the *sewage system*.

### 8.9.3.3. Interceptors

- (1) Every *grease interceptor* referred to in Article 8.1.3.1. shall be maintained so that the grease retained is below the rated capacity of the *interceptor*.

### 8.9.3.4. Class 4 Sewage Systems

- (1) *Septic tanks* and other *treatment units* shall be cleaned whenever sludge and scum occupy 1/3 of the *working capacity* of the tank.

### 8.9.3.5. Shallow Buried Trenches

- (1) The pressure head at the furthest point from the pump in all *distribution pipes* shall be checked for compliance with Article 8.7.6.2. and the design specification at least every 36 months.

**Part 10****Change of Use**

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## Part 10

### Change of Use

#### Section 10.1. General

##### 10.1.1. Scope

##### 10.1.1.1. Scope

(1) The scope of this Part shall be as described in Subsection 1.1.2. of Division A.

##### 10.1.1.2. Change in Major Occupancy

(1) The following changes of use shall also be deemed to be a change in *major occupancy* for the purposes of this Part:

- (a) a *suite* of a Group C *major occupancy* is converted into more than one *suite* of a Group C *major occupancy*,
- (b) a *suite* or part of a *suite* of a Group A, Division 2 or Group A, Division 4 *major occupancy* is converted to a *gaming premise*,
- (c) a *farm building* or part of a *farm building* is changed to a *major occupancy*,
- (d) a *building* or part of a *building* is changed to a *post-disaster building*, or
- (e) the use of a *building* or part of a *building* is changed and the previous *major occupancy* of the *building* or part of the *building* cannot be determined.

##### 10.1.1.3. Definitions

(1) In this Part, the following words and terms have the meaning that they are given in Article 11.1.1.2.:

*Building system*

## Section 10.2. Classification of Existing Buildings

### 10.2.1. Classification

#### 10.2.1.1. Classification of Major Occupancy

(1) Every existing *building* or part of it shall be classified according to its *major occupancy* in accordance with the requirements of Subsection 3.1.2.

#### 10.2.1.2. Classification According to Construction and Occupancy

(1) For the purposes of this Part, existing *buildings* shall be classified as to their *construction* and *occupancy* as provided for in Sentence 11.2.1.1.(1).

#### 10.2.1.3. Building Size and Construction

(1) The requirements of Articles 3.2.2.20. to 3.2.2.83. do not apply to this Part.

## Section 10.3. Requirements

### 10.3.1. General

#### 10.3.1.1. General

r<sub>1</sub> (1) Except as provided in Section 10.4., a *building* or part of a *building* subject to a change of *major occupancy* shall conform to the requirements of Subsection 3.2.6., Sections 3.7., 3.11., 3.12., Subsections 9.5.1. and 9.5.3. to 9.5.10, Section 9.7., Subsection 9.10.17., Sections 9.31. and 9.32., and Subsections 9.34.1. to 9.34.3. as they apply to the new *major occupancy* that the *building* or part of a *building* is to support.



### 10.3.2. Performance Level

#### 10.3.2.1. General

- (1) The *performance level* of a building after the change of *major occupancy* shall not be less than the *performance level* prior to the change of *major occupancy*.
- (2) For the purposes of Sentence (1), reduction of *performance level* shall be determined in accordance with Article 10.3.2.2.

#### 10.3.2.2. Reduction in Performance Level

- (1) Except as provided in Sentence (2), the *performance level* of a building or part of a building is reduced where the existing structural floor and roof framing systems and their supporting members are not adequate to support the proposed *dead loads* and *live loads* of the new *major occupancy* that the building is to support.
- (2) The inadequacy of the existing structural floor or roof framing system and its supporting members to support the proposed *dead loads* and *live loads* does not reduce the *performance level* of the building if the portion of the floor affected by the proposed loads is restricted to the loading it will support and signs stating the restrictions are posted.
- (3) Except as provided in Section 10.4., the *performance level* of a building or part of a building is reduced where the early warning and evacuation systems requirements of the building do not meet the early warning and evacuation systems requirements set out in Table 10.3.2.2.A. for the new *major occupancy* that the building is to support.
- (4) Except as provided in Sentence (5), the *performance level* of an existing building is reduced where a change in use will result in a change of the *major occupancy* of all or part of an existing building to another *major occupancy* of a greater *hazard index*.
- (5) Except as provided in Sentence (6), if the *hazard index* of the new *major occupancy* is greater than the *hazard index* of the existing *major occupancy*, the *performance level* is not reduced where the *hazard index* of the new *major occupancy* is not greater than the *construction index* of the existing building.

**Table 10.3.2.2.A.**  
**For Evaluation of Early Warning/Evacuation**  
 Forming Part of Sentence 10.3.2.2.(3)

Early Warning / Evacuation Evaluation	Compliance Alternative <sup>(1)</sup>
<p>Early Warning and Evacuation to be checked against</p> <p>(a) <i>access to exit widths based on occupant load</i> in Subsection 3.3.1. or 9.9.3.;</p> <p>(b) <i>exit widths based on occupant load</i> in Subsection 3.4.3. or 9.9.3.;</p> <p>(c) <i>exit signs</i> in Subsection 3.4.5. or 9.9.10.;</p> <p>(d) <i>lighting of exits, lighting of access to exits and emergency lighting</i> in Subsection 3.2.7. or 9.9.11.;</p> <p>(e) <i>fire alarm system</i> in Subsection 3.2.4. or 9.10.18.;</p> <p>(f) <i>smoke alarms</i> in Subsection 9.10.19.;</p> <p>(g) <i>travel distance and number of exits</i> in other Parts of this Division;</p> <p>(h) <i>smoke control measures, and at least one elevator to permit transport of fire fighters to all floors in hotels whose floor level is more than 18 m high, measured between grade and floor level of the top storey as per Subsection 3.2.6.; and</i></p> <p>(i) <i>door release hardware requirements</i> in Articles 3.3.1.12. and 3.4.6.15.;</p> <p>and deficiencies shall be upgraded.</p>	<p align="center">EARLY WARNING</p> <p>(a) <i>Compliance alternatives as listed may be used.</i></p> <p align="center">EVACUATION</p> <p>(b) <i>Compliance alternatives as listed to access to exit and exit widths, number of exits, door release hardware, and travel distance may be used.</i></p>
Column 1	2

**Notes to Table 10.3.2.2.A.:**

(1) See Tables 11.5.1.1.A., 11.5.1.1.B., 11.5.1.1.C., 11.5.1.1.D/E, and 11.5.1.1.F. for *compliance alternatives* that may be used.

(6) Small or medium sized existing *buildings* as determined in Tables 11.2.1.1.B to 11.2.1.1.N, facing multiple streets may be assigned a *hazard index* credit of 1, which may be subtracted from the *hazard index* of the new *major occupancy* provided.

(a) the *building* does not contain a Group B, Division 1, a Group C, or a Group F, Division 1 *occupancy*, and

r<sub>1</sub> (b) fire fighting access complying with Articles 3.2.5.1., 3.2.5.2., 3.2.5.3., 3.2.5.4. and 3.2.5.5. or Subsection 9.10.20.



- (7) Except as provided in Sentence (8), the *performance level* of a *building* or part of a *building* is reduced in an existing *building* constructed of *combustible construction* where,
- (a) the *occupancy* is changed to a *residential occupancy* in all or part of the *building*, and
  - (b) if the *building* was new, it would have been required to be constructed of *noncombustible construction*.
- (8) A change in the *occupancy* of a *building* or part of a *building* to a *residential occupancy* does not reduce the *performance level* of the *building* or part of the *building* where,
- (a) the *building* is *sprinklered*, and
  - (b) the *building* does not exceed 6 storeys in *building height*.
- (9) The *performance level* of a *building* or part of a *building* is reduced where the new *major occupancy* in an existing *building* of multiple *occupancy* is not separated from adjoining *major occupancies* by *fire separations* having *fire-resistance ratings* conforming to Article 3.1.3.1., Subsection 9.10.9. or Table 10.3.2.2.B.

Table 10.3.2.2.B.<sup>(1)</sup>

## Additional Upgrading for Multiple Major Occupancies

Forming Part of Sentence 10.3.2.2.(9)

New Major Occupancy	Code Requirements	Compliance Alternative	
All <sup>(2)</sup>	Table 3.1.3.1. and Subsection 9.10.9. Where:	For Existing Building Reduce to	If Sprinklered Reduce to
	1 h rating required	45 min	30 min
	2 h rating required	1.5 h	1 h
	3 h rating required	2 h	1.5 h
Column 1	2	3	4

## Notes to Table 10.3.2.2.B.:

- (1) For *buildings* with multiple *major occupancies* only, where there is a change in *major occupancy*.
- (2) See Sentence 10.3.2.2.(9).

(10) The *performance level* of a *building* is reduced where the *building* after the change of *major occupancy* will not comply with Articles 3.1.3.2. or 9.10.9.12.

(11) The *performance level* of a *building* or part of a *building* is reduced where, after a change of *major occupancy*,

- (a) the total daily design *sanitary sewage flow* of the new *major occupancy*, calculated in accordance with Article 8.2.1.3., exceeds the capacity of any component of a *sewage system* serving the *building*, or
- (b) the type or amount of *sanitary sewage* that will, under the new *major occupancy*, be discharged to a *sewage system* serving the *building* is prohibited by Article 8.1.3.1.

## Section 10.4. Compliance Alternatives

### 10.4.1. Compliance Alternatives

#### 10.4.1.1. Substitution

(1) Except as provided in Sentence (3), a *compliance alternative* to a requirement contained in Part 3, 4, 5, 6 or 7 that is shown in Tables 11.5.1.1.A., 11.5.1.1.B., 11.5.1.1.C., 11.5.1.1.D/E. or 11.5.1.1.F. may be substituted for the requirement where the *chief building official* is satisfied that compliance with the requirement is impracticable because,

- (a) of structural or *construction* difficulties, or
- (b) it is detrimental to the preservation of a *heritage building*.

(2) Except as provided in Sentence (3), a *compliance alternative* to a requirement contained in Part 9 shown in Tables 11.5.1.1.C., 11.5.1.1.D/E. or 11.5.1.1.F. may be substituted for the requirement without satisfying the *chief building official* that the requirement is impracticable.

(3) Where the *building* has been in existence for less than five years, *compliance alternatives* may only be used in respect of requirements of this Division that are referenced in Sentences 10.3.2.2.(3), (5) and Table 10.3.2.2.B.

## Part 11

### Renovation

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## **Part 11**

### **Renovation**

#### **Section 11.1. General**

##### **11.1.1. Scope**

###### **11.1.1.1. Scope**

- (1) The scope of this Part shall be as described in Subsection 1.1.2. of Division A.

###### **11.1.1.2. Definitions**

- (1) In this Part,

*Building system* means a combination of elements or components that form a complete major division of *construction* in the design of a *building* or part of a *building*, including a structural or framing system, a waterproofing system, a *drainage system*, an *exterior cladding system*, a roofing system, a window system, a *partition system*, a corridor system, a stair system, a fire alarm and detection system, a sprinkler system or a heating, ventilation or *air-conditioning system*, a *foundation system*, a standpipe and hose system, a flooring system, a *plumbing system*, a *sewage system* or an electrical system.

##### **11.1.2. Application**

###### **11.1.2.1. Extension, Material Alteration or Repair**

- (1) Where an existing *building* is subject to extension, material alteration or repair,
- (a) the proposed *construction* shall comply with Section 11.3., and
  - (b) the *performance level* of the *building* shall be evaluated and compensating *construction* shall be undertaken in accordance with Section 11.4.

## Section 11.2. Classification of Existing Buildings

### 11.2.1. Classification

#### 11.2.1.1. Construction Index and Hazard Index

- (1) Where proposed *construction* will result in the change of *major occupancy* of all or part of an existing *building* to another *major occupancy*, the *building* shall be classified as to its,
  - (a) *construction* on the basis of *construction index* as provided for in this Part including Table 11.2.1.1.A., and
  - (b) *occupancy* on the basis of *hazard index* as provided for in this Part including Tables 11.2.1.1.B. to 11.2.1.1.N.
- (2) Small or medium sized existing *buildings* as determined in Tables 11.2.1.1.B. to 11.2.1.1.N. facing multiple *streets* may be assigned a *hazard index* credit of 1, which may be subtracted from the *hazard index* of the proposed *major occupancy* to reduce the additional upgrading required by Table 11.4.3.4.A. provided,
  - (a) the *building* does not contain a Group B, Division 1; a Group C, or a Group F, Division 1 *occupancy*, and
  - r<sub>1</sub> (b) fire fighting access complying with Articles 3.2.5.1., 3.2.5.2., 3.2.5.3., 3.2.5.4. and 3.2.5.5. or Subsection 9.10.20.
- (3) The requirements of Articles 3.2.2.20. to 3.2.2.83. do not apply to this Part.

#### 11.2.1.2. Multiple Occupancies

- (1) The classification of an existing *building* of multiple *occupancy* under Article 11.2.1.1. shall be applied according to Articles 3.2.2.5. to 3.2.2.8.

#### 11.2.1.3. Prohibition of Occupancy Combinations

- (1) Nothing in this Part relieves an applicant from complying with the requirements of Articles 3.1.3.2. or 9.10.9.12.



## **Section 11.3. Proposed Construction**

### **11.3.1. New and Existing Building Systems**

#### **11.3.1.1. Material Alteration or Repair of a Building System**

(1) Where an existing *building system* is materially altered or repaired, the *performance level* of the *building* after the material alteration or repair shall be at least equal to the *performance level* of the *building* prior to the material alteration or repair.

#### **11.3.1.2. New Building Systems and Extension of Existing Building Systems**

(1) Except as provided in Article 11.3.3.1. and Section 11.5., the design and *construction* of a new *building system* or the extension of an existing *building system*, shall comply with all other Parts.

### **11.3.2. Extension of Buildings**

#### **11.3.2.1. Portion of Extended Buildings**

- (1) Where an existing *building* is extended,
  - (a) this Part applies to the existing portion of the *building*, and
  - (b) the extended portion of the *building* shall comply with all other Parts.

### **11.3.3. Renovation**

#### **11.3.3.1. Basic Renovation**

(1) Except as provided in Sentence (2) and Article 11.3.3.2., *construction* may be carried out to maintain the existing *performance level* of all or part of an existing *building*, by the reuse, relocation or extension of the same or similar materials or components, to retain the existing character, structural uniqueness, heritage value, or aesthetic appearance of all or part of the *building* if, the *construction* will not adversely affect the early warning and evacuation systems, fire separations, the structural adequacy or create an unhealthy environment in the *building*.

(2) *Construction* in respect of a *hotel* may only be carried out in accordance with Sentence (1) provided that the *construction* will be in conformance with Part 9 of Division B of the Fire Code made under the *Fire Protection and Prevention Act, 1997*.

### 11.3.3.2. Extensive Renovation

(1) Where existing interior walls or ceilings or floor assemblies or roof assemblies are substantially removed in an existing *building* and new interior walls, ceilings, or floor assemblies are installed in the *building*, structural and fire-resistance elements shall be constructed in compliance with the requirements of the other Parts.

(2) Except as provided in Section 11.5., the proposed *construction* within an existing *suite* shall comply with the requirements of Section 3.8. where,

- (a) the existing interior walls or floor assemblies within the *suite* are substantially removed in an existing *building*,
- (b) new interior walls or floor assemblies are installed,
- (c) the *suite* has an area greater than 300 m<sup>2</sup>, and
- (d) the *suite* is located on,
  - (i) a *floor area* where the existing difference in elevation between the adjacent ground level and the floor level is not more than 200 mm, or
  - (ii) a normally occupied *floor area* which is accessible by a passenger type elevator or other platform equipped passenger elevating device from an entrance *storey* where the existing difference in elevation between the adjacent ground level and the entrance *storey* level is not more than 200 mm.

### 11.3.4. Plumbing

#### 11.3.4.1. Extension, Material Alteration or Repair

(1) Notwithstanding Subsections 11.3.1. to 11.3.3., when an existing *building* is extended or subject to material alteration or repair, Part 7 applies,

- (a) to the design and *construction* of *plumbing* in the extensions and those parts of the *building* subject to material alteration and repair, and
- (b) to *plumbing* which is adversely affected by the extension, alteration or repair.

## **Section 11.4. Performance Level Evaluation and Compensating Construction**

### **11.4.1. General**

#### **11.4.1.1. Performance Level**

- (1) The *performance level* of a building after construction shall not be less than the *performance level* of the building prior to construction.
- (2) For the purposes of Sentence (1), reduction of *performance level* shall be determined in accordance with Subsection 11.4.2.
- (3) Where the proposed construction would reduce the *performance level* of an existing building, compensating construction shall be required in conformance with Subsection 11.4.3.

### **11.4.2. Reduction in Performance Level**

#### **11.4.2.1. Structural**

- (1) The *performance level* of an existing building is reduced where after proposed construction in all or part of an existing building,
  - (a) the *major occupancy* will change to a different *major occupancy*,
  - (b) the *occupant load* will increase by more than 15%, or
  - (c) the *live load* will increase due to change in use within the same *major occupancy*, and the existing structural floor and roof framing systems and their supporting members after the construction are not adequate to support the proposed *dead loads* and *live loads*.

#### **11.4.2.2. Increase in Occupant Load**

- (1) Except as required in Sentences 11.4.2.5.(2) and (3), the *performance level* of an existing building is reduced where proposed construction will increase the *occupant load* of an existing building by more than 15%.
- (2) The *performance level* of an existing building is reduced where proposed construction will increase the *occupant load* by 15% or less and the new *occupant load* will be more than 15% above the *occupant load* for which a fire alarm system is required under Sentence 3.2.4.1.(2).

(3) The *performance level* of an existing *building* is reduced where proposed *construction* will increase the *occupant load* by 15% or less and the new *occupant load* will be more than 15% above the existing exit capacity as required under Article 3.4.3.4.

#### 11.4.2.3. Change of Major Occupancy

(1) Except as required in Sentence 11.4.2.5.(4), the *performance level* of an existing *building* is reduced where proposed *construction* will result in,

- (a) the change of the *major occupancy* of all or part of an existing *building* to another *major occupancy* of a greater *hazard index*,
- (b) the conversion of a *suite* of a Group C *major occupancy* into more than one *suite* of Group C *major occupancy*,
- (c) a *suite* or part of a *suite* of a Group A, Division 2 or a Group A, Division 4 *major occupancy* is converted to a *gaming premises*,
- (d) the change of a *farm building* or part of a *farm building* to a *major occupancy*,
- (e) the change of a *building* or part of a *building* is to a *post-disaster building*, or
- (f) the change in use of a *building* or part of a *building* where the previous *major occupancy* of the *building* or part of the *building* cannot be determined.

(2) For the purpose of this Article and Sentences 11.4.2.1.(1) and 11.4.2.5.(4), the change of use set out in Clauses (1)(b) to (e) shall also be deemed to constitute a change in *major occupancy*.

(3) The *performance level* of an existing *building* is reduced where the early warning and evacuation systems requirements of other Parts for the proposed *major occupancy* exceed those of the existing *building*.

(4) The *performance level* of an existing *building* is reduced where the proposed *major occupancy* in the *building* is not separated from the adjoining *major occupancies* by *fire separations* having *fire-resistance ratings* conforming to Tables 3.1.3.1. and 11.4.3.4.B.

(5) The *performance level* of an existing *building* is reduced where the *occupancy* of all or part of an existing *building* of *combustible construction* is changed to a new *major occupancy* that would require the *building*, if it were a new *building*, to be *constructed* of *noncombustible construction*.



#### 11.4.2.4. Plumbing

(1) The *performance level* of an existing *building* is reduced where the existing *building* is extended or subject to material alteration or repair, and *plumbing* in the existing *building* is adversely affected by the extension, alteration or repair.

#### 11.4.2.5. Sewage Systems

(1) The *performance level* of an existing *building* is reduced where the existing *building* is extended or subject to material alteration or repair and a *sewage system* serving the existing *building* is adversely affected by the extension, alteration or repair of the existing *building*.

(2) Except as provided in Sentence (3), the *performance level* of an existing *building* is reduced where proposed *construction* will increase the *occupant load* of an existing *building*, and the new *occupant load* will result in the total daily design *sanitary sewage flow* of the *building*, calculated in accordance with Article 8.2.1.3., exceeding the capacity of any component of a *sewage system* serving the *building*.

(3) The *performance level* of an existing *dwelling unit* is reduced where proposed *construction* that,

- (a) increases the number of bedrooms in the *dwelling unit*,
- (b) exceeds 15% of the finished area of the *dwelling unit*, or
- (c) adds new *plumbing fixtures* to the *dwelling unit*, will result in the total daily design *sanitary sewage flow* of the *dwelling unit*, calculated in accordance with Article 8.2.1.3., exceeding the capacity of any component of a *sewage system* serving the *dwelling unit*.

(4) The *performance level* of an existing *building* is reduced where proposed *construction* will result in the change of a *major occupancy* of all or part of the existing *building* to another *major occupancy* and,

- (a) the total daily design *sanitary sewage flow* of the proposed *major occupancy*, calculated in accordance with Article 8.2.1.3., exceeds the capacity of any component of a *sewage system* serving the *building*, or
- (b) the type or amount of *sanitary sewage* which will, under the proposed *major occupancy*, be discharged to a *sewage system* serving the *building*, is prohibited by Article 8.1.3.1.

### 11.4.3. Compensating Construction

#### 11.4.3.1. General

- (1) Where the *performance level* of an existing *building* is reduced under Subsection 11.4.2., compensating *construction* shall be carried out in accordance with this Subsection.
- (2) Except as provided in Sentence (3) compensating *construction* required under this Subsection applies to the part of the *building* being altered and shall include,
  - (a) *fire separations*, with the required *fire-resistance ratings*, separating the part being altered from the *floor areas* immediately above and below and from the immediate adjacent areas, and
  - (b) *access to exits* and *exits* from the *building*, where the alteration adversely affects the *exit* system of the *building*.
- (3) Compensating *construction* required under this Subsection applies to the existing *building systems* that are adversely affected by the proposed *construction*.

#### 11.4.3.2. Structural

- (1) Where the *performance level* of an existing *building* is reduced under Sentence 11.4.2.1.(1),
  - (a) remedial measures shall be taken to support the proposed loads, or
  - (b) the portion of the floor affected by the proposed loads shall be restricted to the loading it will support and signs stating the restrictions shall be posted.

#### 11.4.3.3. Increase in Occupant Load

- (1) Where the *performance level* of an existing *building* is reduced under Sentences 11.4.2.2.(1), (2) or (3) the *building* shall be evaluated, and the early warning and evacuation systems shall be upgraded, in conformance with the applicable requirements of Table 11.4.3.3.
- (2) Sentence (1) does not apply in a Group C *occupancy* where the new total *occupant load* is,
  - (a) 14 persons or fewer in a *boarding, lodging or rooming house*, except that where the *occupant load* is between 10 and 15 persons, an interconnected system of *smoke alarms* in corridors near stairways is required, or



- (b) 16 persons or fewer in a *building* containing residential *suites* which are *dwelling units*, except that where the *occupant load* is between 10 and 17 persons, an interconnected system of *smoke alarms* in corridors near stairways is required.
- (3) Where the *performance level* of an existing *building* is reduced under Sentence 11.4.2.2.(1), additional *construction* shall be required in order that the *building* or part of the *building* subject to the increase in *occupant load* conforms to the requirements of Sentence 6.2.2.1.(2), Subsection 3.7.4, and Article 9.31.1.1.

#### 11.4.3.4. Change in Major Occupancy

- (1) Where the *performance level* of an existing *building* is reduced under Sentence 11.4.2.3.(1), additional upgrading shall be required in conformance with Table 11.4.3.4.A, and so that the *construction index* of the *building* is increased to at least equal the *hazard index* of the new *major occupancy* that the *building* is to support.
- (2) A *building* or part of the *building* subject to change of *major occupancy* shall conform to the requirements of Subsection 3.2.6., Sections 3.7., 3.11., 3.12., Sentences 6.2.2.1.(2), 6.2.3.9.(1) and 6.2.4.7.(10), Articles 9.5.1.1. to 9.5.1.5, Articles 9.5.3.1. to 9.5.10.1, Section 9.7., Subsection 9.10.17., Sections 9.31. and 9.32., and Subsections 9.34.1. to 9.34.3, as they apply to the new *major occupancy* that the *building* or part of the *building* is to support.
- (3) Where the *performance level* of an existing *building* is reduced under Sentence 11.4.2.3.(3), the *building* shall be evaluated, and the early warning and evacuation systems shall be upgraded, in conformance with the applicable requirements of Table 11.4.3.3.
- (4) Where the *performance level* of an existing *building* is reduced under Sentence 11.4.2.3.(4), upgrading of those systems shall be required in conformance with the applicable requirements of Article 11.3.1. and Table 11.4.3.4.B.
- (5) Where the *performance level* is reduced under Sentence 11.4.2.3.(5) the requirement for *noncombustible construction* is satisfied if the *building* is *sprinklered*.

#### 11.4.3.5. Plumbing

(1) Where the *performance level* of an existing *building* is reduced under Sentence 11.4.2.4.(1), upgrading of *plumbing* in the existing *building* which is adversely affected by the extension, alteration or repair shall be required in conformance with Part 7.

#### 11.4.3.6. Sewage Systems

(1) Where the *performance level* of an existing *building* is reduced under Article 11.4.2.5., upgrading of a *sewage system* which is adversely affected by the *construction*, increase in *occupant load*, increase in the total daily design *sanitary sewage* flow or change in amount or type of *sanitary sewage* shall be required in conformance with Part 8.

### Section 11.5. Compliance Alternatives

#### 11.5.1. Compliance Alternatives

##### 11.5.1.1. Compliance Alternatives

(1) A *compliance alternative* shown in Tables 11.5.1.1.A., 11.5.1.1.B., 11.5.1.1.C., 11.5.1.1.D/E. or 11.5.1.1.F. may be substituted for a requirement contained in Part 3, 4, 5, 6, 7 or 8 where the *chief building official* is satisfied that compliance with the requirement is impracticable because,

- (a) of structural or *construction* difficulties, or
- (b) it is detrimental to the preservation of a *heritage building*.

(2) A *compliance alternative* shown in Tables 11.5.1.1.A., 11.5.1.1.B., 11.5.1.1.C., 11.5.1.1.D/E. or 11.5.1.1.F. may be substituted for a requirement contained in Part 9 without satisfying the *chief building official* that compliance with the requirement is impracticable.



**Table 11.5.1.1.A.**  
**Compliance Alternatives for Assembly Occupancies**  
 Forming Part of Article 11.5.1.1.

NUMBER	PART 8 REQUIREMENTS	PART 11 COMPLIANCE ALTERNATIVE
A76	8.2.1.4.	Existing clearances acceptable where: a <i>sewage system</i> is replaced with another <i>sewage system</i> within the same class; and, the capacity of the replacement <i>sewage system</i> does not exceed the capacity of the existing <i>sewage system</i> .
A77	8.2.1.4.	Existing clearances are acceptable where a replacement <i>sewage system</i> requires lesser clearances than those required in Part 8 for the existing <i>sewage system</i> .
Col. 1	2	3

**Table 11.5.1.1.B.**  
**Compliance Alternatives for Care or Detention Occupancies**  
 Forming Part of Article 11.5.1.1.

NUMBER	PART 8 REQUIREMENTS	PART 11 COMPLIANCE ALTERNATIVE
B78	8.2.1.4.	Existing clearances acceptable where: a <i>sewage system</i> is replaced with another <i>sewage system</i> within the same class; and, the capacity of the replacement <i>sewage system</i> does not exceed the capacity of the existing <i>sewage system</i> .
B79	8.2.1.4.	Existing clearances are acceptable where a replacement <i>sewage system</i> requires lesser clearances than those required in Part 8 for the existing <i>sewage system</i> .
Col. 1	2	3

**Table 11.5.1.1.C.**  
**Compliance Alternatives for Residential Occupancies**  
 Forming Part of Article 11.5.1.1.

NUMBER	PART 8 REQUIREMENTS	PART 11 COMPLIANCE ALTERNATIVE
C95	8.2.1.4.	Existing clearances acceptable where: a <i>sewage system</i> is replaced with another <i>sewage system</i> within the same class; and, the capacity of the replacement <i>sewage system</i> does not exceed the capacity of the existing <i>sewage system</i> .
C96	8.2.1.4.	Existing clearances are acceptable where a replacement <i>sewage system</i> requires lesser clearances than those required in Part 8 for the existing <i>sewage system</i> .
Col. 1	2	3

**Table 11.5.1.1.D/E.**  
**Compliance Alternatives for Business/Mercantile Occupancies**  
 Forming Part of Article 11.5.1.1.

NUMBER	PART 8 REQUIREMENTS	PART 11 COMPLIANCE ALTERNATIVE
DE83	8.2.1.4.	Existing clearances acceptable where: a <i>sewage system</i> is replaced with another <i>sewage system</i> within the same class; and, the capacity of the replacement <i>sewage system</i> does not exceed the capacity of the existing <i>sewage system</i> .
DE84	8.2.1.4.	Existing clearances are acceptable where a replacement <i>sewage system</i> requires lesser clearances than those required in Part 8 for the existing <i>sewage system</i> .
Col. 1	2	3

**Table 11.5.1.1.F.**  
**Compliance Alternatives for Industrial Occupancies**  
 Forming Part of Article 11.5.1.1.

NUMBER	PART 8 REQUIREMENTS	PART 11 COMPLIANCE ALTERNATIVE
F85	8.2.1.4.	Existing clearances acceptable where: a sewage system is replaced with another sewage system within the same class; and, the capacity of the replacement sewage system does not exceed the capacity of the existing sewage system.
F86	8.2.1.4.	Existing clearances are acceptable where a replacement sewage system requires lesser clearances than those required in Part 8 for the existing sewage system.
Col. 1	2	3



## **Division C**

### **Part 1**

#### **Administrative Provisions**

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## Part 1

### Administrative Provisions

#### Section 1.1. Administration

##### 1.1.1. Administration

###### 1.1.1.1. Conformance with Administrative Requirements

- (1) This Code shall be administered in conformance with the Act.

#### Section 1.2. Design and General Review

##### 1.2.1. Design

###### 1.2.1.1. Design by Architect or Professional Engineer

(1) Except as permitted in Sentences (2) and (3), the *construction*, including, for greater certainty, enlargement or alteration, of every *building* or part of it described in Table 1.2.1.1, and this Article shall be designed and reviewed by an *architect*, *professional engineer* or both.

(2) An *architect* may provide the services within the practice of professional engineering in any *building* described in Table 1.2.1.1., or a *professional engineer* may provide the services within the practice of architecture in any *building* described in Table 1.2.1.1, where to do so does not constitute a substantial part of the services provided by the other profession related to the *construction* of the *building* and is necessary

- (a) for the *construction* of the *building* and is incidental to the other services provided by the *architect* or *professional engineer*, or
- (b) for coordination purposes.

**Table 1.2.1.1.<sup>(4)</sup>**  
**Design and General Review**  
 Forming Part of Sentence 1.2.1.1.(1)

<i>Building Classification by Major Occupancy</i>	<i>Building Description</i>	<i>Design and General Review by:</i>
<i>Assembly occupancy only</i>	<i>Every building</i>	<i>Architect and professional engineer<sup>(1)</sup></i>
<i>Assembly occupancy and any other major occupancy except industrial</i>	<i>Every building</i>	<i>Architect and professional engineer<sup>(1)</sup></i>
<i>Care or detention occupancy only</i>	<i>Every building</i>	<i>Architect and professional engineer<sup>(1)</sup></i>
<i>Care or detention occupancy and any other major occupancy except industrial</i>	<i>Every building</i>	<i>Architect and professional engineer<sup>(1)</sup></i>
<i>Residential occupancy only</i>	<i>Every building that exceeds 3 storeys in building height</i>	<i>Architect and professional engineer<sup>(1)</sup></i>
	<i>Every building that exceeds 600 m<sup>2</sup> in gross area and that contains a residential occupancy other than a dwelling unit or dwelling units</i>	<i>Architect<sup>(2)</sup></i>
<i>Residential occupancy only</i>	<i>Every building that exceeds 600 m<sup>2</sup> in gross area and contains a dwelling unit above another dwelling unit</i>	<i>Architect<sup>(2)</sup></i>
	<i>Every building that exceeds 600 m<sup>2</sup> in building area contains 3 or more dwelling units and has no dwelling unit above another dwelling unit</i>	<i>Architect<sup>(2)</sup></i>
<i>Residential occupancy and any other major occupancy except industrial, assembly or care or detention occupancy</i>	<i>Every building that exceeds 600 m<sup>2</sup> in gross area or 3 storeys in building height</i>	<i>Architect and professional engineer<sup>(1)</sup></i>
<i>Business and personal services occupancy only</i>	<i>Every building that exceeds 600 m<sup>2</sup> in gross area or 3 storeys in building height</i>	<i>Architect and professional engineer<sup>(1)</sup></i>
<i>Business and personal services occupancy and any other major occupancy except industrial, assembly or care or detention occupancy</i>	<i>Every building that exceeds 600 m<sup>2</sup> in gross area or 3 storeys in building height</i>	<i>Architect and professional engineer<sup>(1)</sup></i>
<i>Mercantile occupancy only</i>	<i>Every building that exceeds 600 m<sup>2</sup> in gross area or 3 storeys in building height</i>	<i>Architect and professional engineer<sup>(1)</sup></i>
Column 1	2	3



**Table 1.2.1.1.<sup>(4)</sup> (Cont'd)**  
**Design and General Review**  
 Forming Part of Sentence 1.2.1.1.(1)

<i>Building Classification by Major Occupancy</i>	<i>Building Description</i>	<i>Design and General Review by:</i>
<i>Mercantile occupancy and any other major occupancy except industrial, assembly or care or detention occupancy</i>	<i>Every building that exceeds 600 m<sup>2</sup> in gross area or 3 storeys in building height</i>	<i>Architect and professional engineer<sup>(1)</sup></i>
<i>Industrial occupancy only and where there are no subsidiary occupancies</i>	<i>Every building that exceeds 600 m<sup>2</sup> in gross area or 3 storeys in building height</i>	<i>Architect or professional engineer<sup>(1)</sup></i>
<i>Industrial occupancy and one or more other major occupancies where the portion of the area occupied by one of the other major or subsidiary occupancies exceeds 600 m<sup>2</sup>.</i>	<i>The non-industrial portion of every building</i>	<i>Architect and professional engineer<sup>(1)</sup></i>
	<i>The industrial portion of every building</i>	<i>Architect or professional engineer<sup>(1)</sup></i>
<i>Industrial occupancy and one or more other major occupancies where no portion of the area occupied by one of the other major or subsidiary occupancies exceeds 600 m<sup>2</sup>.</i>	<i>Every building that exceeds 600 m<sup>2</sup> in gross area or 3 storeys in building height</i>	<i>Architect or professional engineer<sup>(1)</sup></i>
Column 1	2	3

**Notes To Table 1.2.1.1.:**

- (1) An *architect* shall provide services within the practice of architecture and a *professional engineer* shall provide the services within the practice of professional engineering.
  - (2) An *architect* may engage a *professional engineer* to provide services within the practices of professional engineering.
  - (3) Only a *professional engineer* may provide services within the practice of professional engineering.
  - (4) Requirements for design and general review by an *architect* or *professional engineer* or a combination of both for the *construction*, enlargement or alteration of a *building* are set out in the *Architects Act* and the *Professional Engineers Act*.
- (3) The requirement for an *architect* does not apply to the preparation or provision of a design for interior space for a *building*, including finishes, fixed or loose furnishings, equipment, fixtures and partitioning of space, and related exterior elements such as signs, finishes and glazed openings used for display purposes, that does not affect or is not likely to affect,

- (a) the structural integrity,
- (b) a fire safety system or *fire separation*,
- (c) a main entrance or *public corridor* on a floor,
- (d) an *exit* to a public thoroughfare or to the exterior,
- (e) the *construction* or location of an exterior wall, or
- (f) the usable floor space through the addition of a *mezzanine*, infill or other similar element,

of the *building*.

(4) Where a *building* or part of it described in Table 1.2.1.1. is designed by an *architect* or a *professional engineer* or a combination of both as required by this Article, all plans, sketches, drawings, graphic representations, specifications and other documents that are prepared by an *architect*, *professional engineer* or both and that form the basis for the issuance of a permit under section 8 of the Act or any changes to it authorized by the *chief building official* shall bear the signature and seal of the *architect*, *professional engineer* or both, as applicable.

(5) Where the *foundations* of a *building* are to be constructed below the level of the footings of an adjacent *building* and within the angle of repose of the *soil*, as drawn from the bottom of the footings, the *foundations* shall be designed by a *professional engineer*.

(6) The thermal design of a *building* in accordance with Subsection 12.3.3. of Division B shall be prepared and provided by an *architect* or *professional engineer* or a combination of both.

(7) A sprinkler protected glazed wall assembly described in Article 3.1.8.18. of Division B shall be designed and reviewed by a *professional engineer*.

(8) A *shelf and rack storage system* described in Section 3.16. of Division B shall be designed and reviewed by a *professional engineer*.

(9) The time-based egress analysis for a *shelf and rack storage system* described in Sentence 3.16.1.6.(7) of Division B shall be prepared and provided by an *architect* or *professional engineer* or a combination of both.

(10) The supporting framing structure and anchorage system for a tent occupying an area greater than 225 m<sup>2</sup> shall be designed and reviewed by a *professional engineer*.

(11) A sign structure shall be designed by an *architect* or *professional engineer* where it is,

- (a) a ground sign that exceeds 7.5 m in height above the adjacent finished ground,
- (b) a projecting sign that weighs more than 115 kg, or
- (c) a roof sign that has any face that is more than 10 m<sup>2</sup>.

(12) A projecting sign attached or fastened in any manner to a parapet wall shall be designed by an *architect* or *professional engineer*.

### 1.2.2. General Review

#### 1.2.2.1. General Review by Architect or Professional Engineer

(1) Except as permitted in Sentence (2), a person who intends to *construct* or have constructed a *building* required to be designed by an *architect*, *professional engineer* or both, shall ensure that an *architect*, *professional engineer* or both are retained to undertake the general review of the *construction* of the *building* in accordance with the performance standards of the Ontario Association of Architects or the Association of Professional Engineers of Ontario, as applicable, to determine whether the *construction* is in general conformity with the plans, sketches, drawings, graphic representations, specifications and other documents that are prepared by an *architect*, *professional engineer* or both and that form the basis for the issuance of a permit under section 8 of the Act or any changes to it authorized by the *chief building official*. Copies of written reports arising out of the general review shall be forwarded to the *chief building official* or *registered code agency*, as the case may be, by the *architect*, *professional engineer* or both who have been retained to undertake the general review of the *construction* of the *building*.

(2) An *architect* or a *professional engineer* need not be retained to undertake the general review of *construction* of a *building* where the *building* is designed in accordance with Subsection 12.3.3. of Division B.

#### 1.2.2.2. Restriction for General Review

- (1) Only an *architect* may carry out or provide the general review of the *construction* of a *building*
- (a) that is constructed in accordance with a design prepared or provided by an *architect*, or

- (b) in relation to services that are provided by an *architect* in connection with the design in accordance with which the *building* is constructed.
- (2) Only a *professional engineer* may carry out or provide the general review of the *construction* of a *building*
  - (a) that is constructed in accordance with a design prepared or provided by a *professional engineer*, or
  - (b) in relation to services that are provided by a *professional engineer* in connection with the design in accordance with which the *building* is constructed.

### 1.2.2.3. Demolition of a Building

- (1) The applicant for a permit respecting the *demolition* of a *building* shall retain a *professional engineer* to undertake the general review of the project during *demolition*, where
  - (a) the *building* exceeds 3 storeys in *building height* or 600 m<sup>2</sup> in *building area*,
  - (b) the *building* structure includes pre-tensioned or post-tensioned members,
  - (c) it is proposed that the *demolition* will extend below the level of the footings of any adjacent *building* and occur within the angle of repose of the *soil*, drawn from the bottom of such footings, or
  - (d) explosives or a laser are to be used during the course of *demolition*.

## Section 1.3. Permits and Inspections

### 1.3.1. Permits

#### 1.3.1.1. Requirement for Permits

- (1) A person is exempt from the requirement to obtain a permit under section 8 of the Act
  - (a) for the *demolition* of a *building* located on a farm,
  - (b) subject to Sentence (2), for the *construction* or *demolition* of a *building* in territory without municipal organization, or
  - (c) for the *construction* of a Class 1 *sewage system*.
- (2) The exemption in Clause (1)(b) from the requirement to obtain a permit does not apply to the *construction* of a *sewage system* in territory without municipal organization.

- (3) Where a permit is required for the *demolition* of a *building* in Sentence 1.2.2.3.(1), descriptions of the structural design characteristics of the *building* and the method of *demolition* shall be included in the application for a permit to demolish the *building*.
- (4) No person shall commence *demolition* of a *building* or any part of a *building* before the *building* has been vacated by the occupants except where the safety of the occupants is not affected.
- (5) A tent or group of tents is exempt from the requirement to obtain a permit under section 8 of the Act and is exempt from compliance with the Code provided that the tent or group of tents are:
  - (a) not more than 60 m<sup>2</sup> in aggregate ground area,
  - (b) not attached to a *building*, and
  - (c) constructed more than 3 m from other structures.

### **1.3.1.2. Applications for Permits under Section 8 of the Act**

- (1) An application for a permit under section 8 of the Act to *construct* or *demolish* a *building* shall be made by
  - (a) the owner of the property on which the proposed *construction* or *demolition* is to take place, or
  - (b) the authorized agent of the owner referred to in Clause (a).
- (2) An application referred to in Sentence (1) that is made after June 30, 2005 shall be in a form approved by the *Minister*.
- (3) In Sentence (1),

*owner* includes, in respect of the property on which the *construction* or *demolition* will take place, the registered owner, a lessee and a mortgagee in possession.

### **1.3.1.3. Period Within Which a Permit is Issued or Refused**

- (1) Subject to Sentences (2) and (3), if an application for a permit under subsection 8(1) of the Act that meets the requirements of Sentence (5) is submitted to a *chief building official*, the *chief building official* shall, within the time period set out in Column 3 of Table 1.3.1.3, corresponding to the class of *building* described in Column 2 of Table 1.3.1.3, for which the application is made,

- (a) issue the permit, or
  - (b) refuse to issue the permit and provide in writing all of the reasons for the refusal.
- (2) If an application for a permit under subsection 8(1) of the Act proposes *construction* or *demolition* of two or more *buildings* of different classes described in Column 2 of Table 1.3.1.3. that have different time periods in Column 3 of Table 1.3.1.3., the longer of the time periods shall be the time period for the purposes of Sentence (1).
- (3) If an application for a permit under subsection 8(1) of the Act proposes *construction* or *demolition* of a *building* described in Sentence (4), the time period for the purposes of Sentence (1) shall be the longer of
- (a) 10 days, and
  - (b) the time period corresponding to the class of the *building* described in Column 2 of Table 1.3.1.3. that the *building* in Sentence (4) serves, if any.
- (4) A *building* referred to in Sentence (3) is:
- (a) a structure occupying an area of 10 m<sup>2</sup> or less that contains *plumbing*, including the *plumbing* appurtenant to it,
  - (b) *plumbing* not located in a structure,
  - (c) a *sewage system*, or
  - (d) a structure designated in Article 1.3.1.1. of Division A.
- (5) The requirements for an application referred to in Sentence (1) for a permit under subsection 8(1) of the Act are:
- (a) that the application be made in the form described in Sentence 1.3.1.2.(2),
  - (b) that the application be signed by a person described in Clause 1.3.1.2.(1)(a) or (b),
  - (c) that all applicable fields on the application form and required schedules are completed,
  - (d) that all attachments indicated as being attached to the application are submitted with the application, and
  - (e) that the application be accompanied by the types and quantities of plans and specifications that are prescribed by the applicable by-law, resolution or regulation made under clause 7(1)(b) of the Act.



(6) The time period described in Sentences (1) to (3) shall begin on the day following the later of

- (a) the day on which an application meeting the requirements of Sentence (5) is submitted to the *chief building official*, and
- (b) the day on which payment is made of all fees that are required, under a by-law, regulation or resolution made under clause 7(1)(c) of the Act, to be paid when the application is made.

(7) Subject to Sentences (8) and (9), the time periods described in Column 3 of Table 1.3.1.3. shall not include Saturdays, holidays and all other days when the offices of the *principal authority* are not open for the transaction of business with the public.

(8) The time period in Sentence (9) applies where

- (a) an application is made for the *construction* of a *building* that is served by a *sewage system*,
- (b) *construction* is proposed in respect of the *sewage system* that serves the *building*, and
- r<sub>1</sub> (c) a board of health, conservation authority, planning board or the council of an upper-tier municipality is responsible for the enforcement of the provisions of the Act and this Code related to the *sewage system* under section 3.1 of the Act or pursuant to an agreement under section 6.2 of the Act.

(9) The time period described in Sentences (1) to (3) for an application referred to in Clause (8)(a) shall begin on the day following the latest of

- (a) the day on which an application meeting the requirements of Sentence (5) is submitted to the *chief building official*,
- (b) the day on which payment is made of all fees that are required, under a by-law, regulation or resolution made under clause 7(1)(c) of the Act, to be paid when the application is made, and
- (c) the day on which a permit for the *construction* of the *sewage system* referred to in Clause (8)(b) is issued.

**Table 1.3.1.3.**  
**Period Within Which Permit Shall be Issued or Refused**  
 Forming Part of Article 1.3.1.3.

Row Number	Class of Building	Time Period
1	(a) A detached house, semi-detached house, townhouse, or row house where no <i>dwelling unit</i> is located above another <i>dwelling unit</i> . (b) A detached structure that serves a <i>building</i> described in Clause (a) and does not exceed 50 m <sup>2</sup> in <i>building area</i> . (c) A tent to which Section 3.14. of Division B applies. (d) A sign to which Section 3.15. of Division B applies.	10 days
2	(a) <i>Buildings</i> described in Clauses 1.1.2.4.(1)(a), (b) or (c) of Division A, other than <i>buildings</i> described in Column 2 of any of Rows 1 and 4 of this Table. (b) <i>Farm buildings</i> that do not exceed 600 m <sup>2</sup> in <i>building area</i> .	15 days
3	(a) <i>Buildings</i> described in Clauses 1.1.2.2.(1)(a) or (b) of Division A, other than <i>buildings</i> described in Column 2 of any of Rows 1 and 4 of this Table. (b) <i>Farm buildings</i> exceeding 600 m <sup>2</sup> in <i>building area</i> .	20 days
4	(a) <i>Post-disaster buildings</i> . (b) <i>Buildings</i> to which Subsection 3.2.6. of Division B or any provision in Articles 3.2.8.3. to 3.2.8.11. of Division B applies.	30 days
Column 1	2	3

#### 1.3.1.4. Permits Under Section 10 of the Act

(1) Except as provided in Sentence (2), the following changes in use of a *building* or part of a *building* constitute an increase in hazard for the purposes of section 10 of the Act and require a permit under section 10 of the Act:

- (a) a change of the *major occupancy* of all or part of a *building* that is designated with a "Y" in Table 1.3.1.4. takes place,
- (b) a *suite* of a Group C *major occupancy* is converted into more than one *suite* of Group C *major occupancy*,



- (c) a *suite* or part of a *suite* of a Group A, Division 2 or a Group A, Division 4 *major occupancy* is converted to a *gaming premises*,
- (d) a *farm building* or part of a *farm building* is changed to a *major occupancy*,
- (e) a *building* or part of a *building* is changed to a *post-disaster building*, or
- (f) the use of a *building* or part of a *building* is changed and the previous *major occupancy* of the *building* or part of the *building* cannot be determined.

**Table 1.3.1.4.**  
**Permit Required for Change of Use**  
 Forming Part of Sentence 1.3.1.4.(1)<sup>(1)</sup>

		FROM <sup>(2)</sup>												
		A-1	A-2	A-3	A-4	B-1	B-2	B-3	C	D	E	F-1	F-2	F-3
TO <sup>(3)</sup>	A-1	N <sup>(4)</sup>	Y	Y	N <sup>(4)</sup>	Y	Y	Y	Y	Y	Y	Y	Y	Y
	A-2	Y	N <sup>(4)</sup>	Y	N <sup>(4)</sup>	Y	Y	Y	Y	Y	Y	Y	Y	Y
	A-3	Y	Y	N <sup>(4)</sup>	N <sup>(4)</sup>	Y	Y	Y	Y	Y	Y	Y	Y	Y
	A-4	Y	Y	Y	N <sup>(4)</sup>	Y	Y	Y	Y	Y	Y	Y	Y	Y
	B-1	Y	Y	Y	N <sup>(4)</sup>	N <sup>(4)</sup>	Y	Y	Y	Y	Y	Y	Y	Y
	B-2	Y	Y	Y	N <sup>(4)</sup>	Y	N <sup>(4)</sup>	Y	Y	Y	Y	Y	Y	Y
	B-3	Y	Y	Y	N <sup>(4)</sup>	Y	N <sup>(4)</sup>	N <sup>(4)</sup>	Y	Y	Y	Y	Y	Y
	C	Y	Y	Y	N <sup>(4)</sup>	Y	N <sup>(4)</sup>	N <sup>(4)</sup>	(4)	Y	Y	Y	Y	Y
	D	N <sup>(4)</sup>	N <sup>(4)</sup>	Y	N <sup>(4)</sup>	Y	N <sup>(4)</sup>	N <sup>(4)</sup>	Y	N <sup>(4)</sup>	Y	Y	N <sup>(4)</sup>	N <sup>(4)</sup>
	E	Y	Y	Y	N <sup>(4)</sup>	Y	Y	Y	Y	Y	N <sup>(4)</sup>	Y	Y	Y
	F-1	Y	Y	Y	N <sup>(4)</sup>	Y	Y	Y	Y	Y	Y	N <sup>(4)</sup>	Y	Y
	F-2	Y	Y	Y	N <sup>(4)</sup>	Y	Y	Y	Y	Y	Y	N <sup>(4)</sup>	N <sup>(4)</sup>	Y
	F-3	Y	N <sup>(4)</sup>	Y	N <sup>(4)</sup>	Y	Y	Y	Y	N <sup>(4)</sup>	N <sup>(4)</sup>	N <sup>(4)</sup>	N <sup>(4)</sup>	N <sup>(4)</sup>

**Notes to Table 1.3.1.4.:**

- (1) See Clause 1.3.1.4.(1)(a) and Clauses 3.17.1.1.(1)(a) and 9.41.1.1.(1)(a) of Division B.
- (2) *Major occupancy* of all or part of a *building* before change of use.
- (3) *Major occupancy* of all or part of a *building* after change of use.
- (4) See Clause 1.3.1.4.(1)(b) and Clauses 3.17.1.1.(1)(b), 9.41.1.1.(1)(b) and 11.4.2.3.(1)(b) of Division B.
- (5) "N" is only applicable where the *major occupancy* of the entire *suite* is changed.

(2) A person is exempt from the requirement to obtain a permit under Section 10 of the Act where the change in use of the *building* or part of the *building* will result from proposed *construction* and a permit under Section 8 of the Act has been issued in respect of such *construction*.

(3) A person is exempt from the requirement to obtain a permit under Section 10 of the Act for the change of use of a *building* in unorganized territory.

### 1.3.1.5. Conditional Permits

(1) The *chief building official* shall not issue a conditional permit for any stage of *construction* under subsection 8(3) of the Act unless compliance with the following *applicable laws* has been achieved in respect of the *construction* of the proposed *building*

- (a) regulations made by a conservation authority under clause 28(1)(c) of the *Conservation Authorities Act* with respect to permission of the authority for the *construction* of a *building* or structure if, in the opinion of the authority, the control of flooding, erosion, dynamic beaches or pollution or the conservation of land may be affected by the development,
- (b) section 5 of the *Environmental Assessment Act* with respect to the approval of the Minister or the Environmental Review Tribunal to proceed with an undertaking,
- (c) subsection 24(3) of the *Niagara Escarpment Planning and Development Act*,
- (c.1) subsection 27(3) of the *Ontario Heritage Act*,
- (d) subsection 30(2) of the *Ontario Heritage Act* with respect to a consent of the council of a *municipality* to the alteration or *demolition* of a *building* where the council of the *municipality* has given a notice of intent to designate the *building* under subsection 29(3) of that Act,
- (e) section 33 of the *Ontario Heritage Act* with respect to the consent of the council of a *municipality* for the alteration of property,
- (f) section 34 of the *Ontario Heritage Act* with respect to the consent of the council of a *municipality* for the *demolition* of a *building*,
- (g) section 34.5 of the *Ontario Heritage Act* with respect to the consent of the Minister to the alteration or *demolition* of a designated *building*,
- (h) subsection 34.7 (2) of the *Ontario Heritage Act* with respect to a consent of the Minister to the alteration or *demolition* of a *building* where the Minister has given a notice of intent to designate the *building* under section 34.6 of that Act,



- (h.1) by-laws made under section 40.1 of the *Ontario Heritage Act*,
  - (i) section 42 of the *Ontario Heritage Act* with respect to the permit given by the council of a *municipality* for the erection, alteration or demolition of a *building*.
- (2) For the purposes of issuing a conditional permit under subsection 8(3) of the Act, a person is exempt from the requirement in clause 8(3)(a) of the Act of compliance with by-laws passed under sections 34 and 38 of the *Planning Act* where
- (a) a committee of adjustment has made a decision under section 45 of the *Planning Act* authorizing one or more minor variances from the provisions of any by-laws made under sections 34 and 38 of that Act,
  - (b) such minor variance or variances result in the achievement of full compliance with such by-laws, and
  - (c) no person informed the committee of adjustment of objections to the minor variances either in writing or in person at the hearing of the application.
- (3) For the purposes of issuing a conditional permit under subsection 8(3) of the Act, a person is exempt from the requirement in clause 8(3) of the Act of compliance with by-laws passed under sections 34 and 38 of the *Planning Act* where the *construction* in respect of which the conditional permit is issued is required in order to comply with an order issued under subsection 21(1) of the *Fire Protection and Prevention Act, 1997* or under Subsection 15.9(4) of the Act.
- (4) A permit issued under Subsection 8(3) of the Act shall indicate its conditional nature.

### **1.3.2. Site Documents**

#### **1.3.2.1. Permit Posting**

- (1) Where a permit has been issued pursuant to the Act, the person to whom it is issued shall have the permit or a copy of it posted at all times during *construction* or *demolition* in a conspicuous place on the property in respect of which the permit was issued.

### 1.3.2.2. Documentation on Site

- (1) The person in charge of the *construction* of the *building* shall keep and maintain on the site of the *construction*
- (a) at least one copy of drawings and specifications certified by the *chief building official* or a person designated by the *chief building official* to be a copy of those submitted with the application for the permit to *construct the building*, together with changes that are authorized by the *chief building official* or a person designated by the *chief building official*, and
- (b) authorization or facsimiles of it received from the Building Materials Evaluation Commission, including specified terms and conditions.

### 1.3.3. Occupancy of Unfinished Building

#### 1.3.3.1. Occupancy Permit

- (1) Except as permitted in Sentence 1.3.3.2.(1), a person may occupy or permit to be occupied any *building* or part of it that has not been fully completed at the date of occupation where the *chief building official* or a person designated by the *chief building official* has issued a permit authorizing occupation of the *building* or part of it prior to its completion in accordance with Sentence (2).
- (2) The *chief building official* or a person designated by the *chief building official* shall issue a permit authorizing occupation of a *building*, where
  - (a) the structure of the *building* or part of it is completed to the roof,
  - (b) the enclosing walls of the *building* or part of it are completed to the roof,
  - (c) the walls enclosing the space to be occupied are completed, including balcony *guards*,
  - (d) all required *fire separations* and *closures* are completed on all *storeys* to be occupied,
  - (e) all required *exits* are completed and fire separated including all doors, door hardware, self-closing devices, balustrades and handrails from the uppermost floor to be occupied down to *grade* level and below if an *exit* connects with lower *storeys*,
  - (f) all shafts including *closures* are completed to the floor-ceiling assembly above the *storey* to be occupied and have a temporary *fire separation* at such assembly,
  - (g) measures have been taken to prevent access to parts of the *building* and site that are incomplete or still under *construction*,



- (h) floors, halls, lobbies and required *means of egress* are kept free of loose materials and other hazards,
- (i) if service rooms should be in operation, required *fire separations* are completed and all *closures* installed,
- (j) all *building drains, building sewers, water systems, drainage systems* and *venting systems* are complete and tested as operational for the *storeys* to be occupied,
- (k) required lighting, heating and electrical supply are provided for the *suites, rooms* and common areas to be occupied,
- (l) required lighting in corridors, stairways and *exits* is completed and operational up to and including all *storeys* to be occupied,
- (m) required standpipe, sprinkler and fire alarm systems are complete and operational up to and including all *storeys* to be occupied, together with required pumper connections for such standpipes and sprinklers,
- (n) required fire extinguishers have been installed on all *storeys* to be occupied,
- (o) main garbage rooms, chutes and ancillary services thereto are completed to *storeys* to be occupied,
- (p) required fire fighting access routes have been provided and are accessible, and
- (q) the *sewage system* has been completed and is operational.

(3) Where a *registered code agency* has been appointed to perform the functions described in clause 4.1(4)(b) or (c) of the Act in respect of the *construction of the building*, the *chief building official* or a person designated by the *chief building official* shall issue the permit referred to in Sentence (2) after receipt of a *certificate for the occupancy of a building not fully completed* issued by the *registered code agency* in respect of the *building*.

### 1.3.3.2. Conditions for Residential Occupancy

(1) A person may occupy or permit to be occupied a *building* intended for *residential occupancy* that has not been fully completed at the date of occupation provided that

- (a) the *building*
  - (i) is of three or fewer *storeys* in *building height* and has a *building area* not exceeding 600 m<sup>2</sup>,
  - (ii) has not more than 1 *dwelling unit* above another *dwelling unit*,
  - (iii) has not more than 2 *dwelling units* sharing a common *means of egress*, and
  - (iv) has no accommodation for tourists,

- (b) the following *building* components and systems are complete, operational and inspected:
  - (i) required *exits*, handrails and *guards*, fire alarm and detection systems, and *fire separations*,
  - (ii) required exhaust fume barriers and self-closing devices on doors between an attached or built-in garage and a *dwelling unit*, and
  - (iii) water supply, sewage disposal, lighting and heating systems,
- (c) the following *building* components and systems are complete, operational, inspected and tested:
  - (i) *water systems*,
  - (ii) *building drains* and *building sewers*, and
  - (iii) *drainage systems* and *venting systems*, and
- (d) where applicable, the *building* conforms to Article 3.1.1.3. or 9.1.1.7. of Division B.

### 1.3.3.3. Notification

- (1) Where a person has occupied or permitted the occupancy of a *building* under this Subsection, such person shall notify the *chief building official* forthwith upon completion of the *building*.

### 1.3.4. Fire Department Inspection

#### 1.3.4.1. Fire Department Approval

- (1) Subject to Sentence (2), if the council of a *municipality* assigns specific responsibility for the enforcement of any portion of this Code respecting fire safety matters to an *inspector* who is the chief of the fire department of the *municipality*, the *chief building official* shall not issue a permit to *construct a building* unless the *inspector* approves the drawings submitted with the application for the permit as complying with that portion of this Code.
- (2) If a *registered code agency* has been appointed under clause 4.1(4)(a) or (c) of the Act
  - (a) a *municipality* shall not assign responsibility under Sentence (1) to the chief of the fire department with respect to a *building* for which the *registered code agency* has been appointed, and
  - (b) any assignment of responsibility under Sentence (1) with respect to a *building* for which the *registered code agency* is appointed shall be cancelled as of the date of the appointment.



### 1.3.5. Notices and Inspections

#### 1.3.5.1. Prescribed Notices

- (1) This Article sets out the notices that are required under section 10.2 of the Act.
- (2) The person to whom a permit under section 8 of the Act is issued shall notify the *chief building official* or, where a *registered code agency* is appointed under the Act in respect of the construction to which the notice relates, the *registered code agency* of:
- (a) readiness to *construct* footings,
  - (b) substantial completion of footings and *foundations* prior to commencement of backfilling,
  - (c) substantial completion of structural framing and ductwork and piping for heating and *air-conditioning* systems, if the *building* is within the scope of Part 9 of Division B,
  - (d) substantial completion of structural framing and roughing-in of heating, ventilation, *air-conditioning* and air-contaminant extraction equipment, if the *building* is not a *building* to which Clause (c) applies,
  - (e) substantial completion of insulation, *vapour barriers* and *air barriers*,
  - (f) substantial completion of all required *fire separations* and *closures* and all fire protection systems including standpipe, sprinkler, fire alarm and emergency lighting systems,
  - (g) substantial completion of fire access routes,
  - (h) readiness for inspection and testing of:
    - (i) *building sewers* and *building drains*,
    - (ii) *water service pipes*,
    - (iii) *fire service mains*,
    - (iv) *drainage systems* and *venting systems*,
    - (v) the *water distribution system*, and
    - (vi) *plumbing fixtures* and *plumbing appliances*,
  - (i) readiness for inspection of suction and gravity outlets, covers and suction piping serving outlets of an *outdoor pool* described in Clause 1.3.1.1.(1)(j) of Division A, a *public pool* or a *public spa*,
  - (j) substantial completion of the circulation / *recirculation system* of an *outdoor pool* described in Clause 1.3.1.1.(1)(j) of Division A, a *public pool* or *public spa* and substantial completion of the pool before it is first filled with water,
  - (k) readiness to *construct* the *sewage system*,
  - (l) substantial completion of the installation of the *sewage system* before the commencement of backfilling,

- (m) substantial completion of installation of *plumbing* not located in a structure, before the commencement of backfilling, and
- (n) completion of *construction* and installation of components required to permit the issue of an occupancy permit under Sentence 1.3.3.1.(2) or to permit occupancy under Sentence 1.3.3.2.(1), if the *building* or part of the *building* to be occupied is not fully completed.

### 1.3.5.2. Additional Notices

(1) A *principal authority* may pass a by-law or resolution or make a regulation under clause 7(1)(e) of the Act, as part of its responsibility for the enforcement of the Act, in order to establish time periods within which notice of one or more of the following stages of *construction* must be given:

- (a) commencement of *construction* of the *building*,
- (b) substantial completion of structural framing for each *storey*, if the *building* is a type of *building* that is within the scope of Parts of Division B other than Part 9 of Division B,
- (c) commencement of *construction* of:
  - (i) masonry fireplaces and masonry *chimneys*,
  - (ii) factory-built fireplaces and allied *chimneys*,
  - (iii) *stoves*, *ranges*, *space heaters* and add-on *furnaces* using solid fuels and allied *chimneys*,
- (d) substantial completion of interior finishes,
- (e) substantial completion of heating, ventilating, *air-conditioning* and air-contaminant extraction equipment,
- (f) substantial completion of exterior cladding,
- (g) substantial completion of site grading,
- (h) substantial completion of the pool deck and dressing rooms for a *public pool* or *public spa* and readiness for inspection of the emergency stop system for a *public pool* or *public spa*, and
- (i) completion and availability of drawings of the *building* as constructed.

(2) The person to whom a permit under section 8 of the Act is issued shall notify the *chief building official* or, if a *registered code agency* is appointed under the Act in respect of the *construction* to which the notice relates, the *registered code agency* of the stages of *construction* for which a time period for giving notice is required under Sentence (1).





### 1.3.5.3. Prescribed Inspections

- (1) Except as provided in Sentence (2), an *inspector* or *registered code agency*, as the case may be, shall, not later than two days after receipt of a notice given under Sentence 1.3.5.1.(2), undertake a site inspection of the *building* to which the notice relates.
- (2) Where a notice given under Sentence 1.3.5.1.(2) relates to matters described in Clause 1.3.5.1.(2)(k) or (l), an *inspector* or *registered code agency*, as the case may be, shall, not later than five days after receipt of the notice, undertake a site inspection of the *sewage system* to which the notice relates.
- (3) When undertaking an inspection required under Sentence (1) or (2), the *inspector* or *registered code agency*, as the case may be, may consider reports concerning whether the *building* or a part of the *building* complies with the Act or this Code.
- (4) The time periods referred to in Sentences (1) and (2) shall begin on the day following the day on which the notice is given.
- (5) The time periods referred to in Sentences (1) and (2) shall not include Saturdays, holidays and all other days when the offices of the *principal authority* are not open for the transaction of business with the public.

### 1.3.5.4. Exemption

- (1) A person is exempt from the requirement in Sentences 1.3.5.1.(2) and 1.3.5.2.(2) to give notice to the *chief building official* in respect of *construction* if
  - (a) a permit in respect of the *construction* was issued to the person under section 8 of the Act before July 1, 2005, and
  - (b) the person notifies the *chief building official* in accordance with
    - (i) Sentence 2.4.5.1.(1) of Ontario Regulation 403/97, as it read on June 30, 2005, and
    - (ii) the by-law passed by the *municipality* under clause 7(1)(e) of the Act, as the by-law read on June 30, 2005.
- (2) Article 1.3.5.3. does not apply to *construction* to which Sentence (1) relates.

### 1.3.5.5. Construction of Sewage Systems

(1) The following information is prescribed for the purposes of subsection 15.12(3) of the Act and must be provided to the *chief building official* before the commencement of the *construction* of a *sewage system*:

- (a) the information described in Sentence 3.3.4.1.(2) as it relates to
  - (i) the person registered under Article 3.3.3.2., and
  - (ii) the person with the qualifications described in Clause 3.2.3.2.(1)(a) who will supervise *construction* on-site of the *sewage system*, and
- (b) the name and telephone number of the representative of the person described in Subclause (a)(i) who may be contacted by the *chief building official* in respect of the *construction* of the *sewage system*.

### 1.3.5.6. Orders

(1) An order issued under subsection 12(2), 13(1), 13(6) or 14(1) or clause 18(1)(f) of the Act shall be in a form approved by the *Minister*.

### 1.3.6. As Constructed Plans

#### 1.3.6.1. Application

(1) Where the council of a *municipality* has passed a by-law pursuant to clause 7(1)(g) of the Act, the *chief building official* may require that *as constructed plans* for the whole of, or any part or system of, a *building* or any class of *buildings* be provided by the persons responsible for the *construction*.

## Section 1.4. Search Warrant

### 1.4.1. Forms

#### 1.4.1.1. Information & Warrant Forms

(1) An information to obtain a warrant to enter and search lands and *buildings* under subsection 21(1) of the Act shall be in Form 1.4.1.A.

(2) A warrant to enter and search lands and *buildings* under subsection 21(1) of the Act shall be in Form 1.4.1.B.



**Form 1.4.1.A.**  
**Building Code Act, 1992**

**INFORMATION TO OBTAIN SEARCH WARRANT UNDER SECTION 21  
OF THE BUILDING CODE ACT, 1992**

ONTARIO COURT (PROVINCIAL DIVISION)  
PROVINCE OF ONTARIO

This is the information of \_\_\_\_\_  
(name)  
of \_\_\_\_\_,  
(address) (occupation)

I have reasonable ground to believe and do believe that the offence of \_\_\_\_\_  
contrary to Building Code Act, 1992 Section \_\_\_\_\_ has been committed and that the  
entry into and search of a certain building, receptacle or place, namely,

\_\_\_\_\_  
(building, receptacle or place)  
of \_\_\_\_\_, at \_\_\_\_\_  
(owner) (address)

will afford the following evidence: \_\_\_\_\_

\_\_\_\_\_  
(describe evidence to be searched for, including things to be seized, if any)

relevant to the commission of the offence.

And I further say that my grounds for so believing are:

Therefore, I request that a search warrant be issued to

☐ enter into and search the said \_\_\_\_\_  
check (building, receptacle or place)  
appropriate \_\_\_\_\_ for the said evidence.  
box

☐ enter into and search the said \_\_\_\_\_  
(building, receptacle or place)  
for the said evidence and to seize

the following things: \_\_\_\_\_  
(describe things to be seized)

\_\_\_\_\_  
Informant

Sworn before me at \_\_\_\_\_,

this \_\_\_\_\_ day of \_\_\_\_\_,

\_\_\_\_\_  
Provincial Judge or Justice of the Peace

**Form 1.4.1.B.**  
Building Code Act, 1992

SEARCH WARRANT UNDER SECTION 21 OF THE BUILDING CODE ACT, 1992

ONTARIO COURT (PROVINCIAL DIVISION)  
PROVINCE OF ONTARIO

To: \_\_\_\_\_

Whereas, on the information on oath of \_\_\_\_\_,

I am satisfied that there is reasonable ground to believe that the offence of \_\_\_\_\_  
contrary to Building Code Act, 1992

Section \_\_\_\_\_ has been committed and that \_\_\_\_\_

(describe evidence to be searched for, including things to be seized, if any)  
that there is reasonable ground to believe will afford evidence of the said offence may be  
found at \_\_\_\_\_

(building, receptacle or place)

of \_\_\_\_\_, at \_\_\_\_\_

(owner)

(address)

hereinafter called the premises.

This is therefore to authorize you to enter such \_\_\_\_\_

(name or location of building, receptacle or place)

between the hours of 6:00 a.m. and 9:00 p.m., or \_\_\_\_\_

(time warrant to be executed)

check ☐ and to search for the said evidence.

appropriate

box

☐ and to search for the said evidence and to seize the following things

(describe things to be seized)

and carry them before me or another Provincial Judge or Justice of the  
Peace so that they may be dealt with according to the law.

This warrant expires on the \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_, a day not  
later than the fifteenth day after its issue.

Issued at \_\_\_\_\_

this \_\_\_\_\_ day of \_\_\_\_\_

Provincial Judge or Justice of the Peace

## **Section 1.5. Designated Persons and Powers**

### **1.5.1. General**

#### **1.5.1.1. General**

(1) The *director* and employees of the Ministry of Municipal Affairs and Housing specified by the *director* are designated for the purposes of the enforcement of the Act and this Code in relation to the qualifications of:

- (a) *chief building officials*,
- (b) *inspectors*,
- (c) *registered code agencies*,
- (d) persons engaging in the activities described in subsection 15.11(5) of the Act, and
- (e) persons engaged in the business of *constructing* on site, installing, repairing, servicing, cleaning or emptying *sewage systems*.

(2) The *director* may, for the purposes set out in Sentence (1), exercise the following powers under the Act of a *chief building official*:

- (a) certify for the purposes of subsection 37(2) of the Act statements as to any matter of record in the office of the *director*, and
- (b) apply for an order under section 38 of the Act.

(3) The employees of the Ministry of Municipal Affairs and Housing designated by the *director* may, for the purposes set out in Sentence (1), exercise the following powers under the Act of an *inspector*:

- (a) subject to section 16 of the Act, exercise the powers of entry for inspection purposes in subsection 12(1) of the Act, and
- (b) exercise the powers of an *inspector* under section 18 of the Act.

(4) Sections 15.23 and 19 of the Act apply to the exercise of powers under this Article by the *director* and employees of the Ministry of Municipal Affairs and Housing designated by the *director*.

## **Section 1.6. Prescribed Person**

### **1.6.1. General**

#### **1.6.1.1. General**

(1) The *director* is prescribed for the purposes of section 38.1 of the Act.

## Section 1.9. Fees

### 1.9.1. Fees

#### 1.9.1.1. Annual Report

(1) The report referred to in subsection 7(4) of the Act shall contain the following information in respect of fees authorized under clause 7(1)(c) of the Act:

- (a) total fees collected in the 12-month period ending no earlier than three months before the release of the report,
- (b) the direct and indirect costs of delivering services related to the administration and enforcement of the Act in the area of jurisdiction of the *principal authority* in the 12-month period referred to in Clause (a),
- (c) a break-down of the costs described in Clause (b) into at least the following categories:
  - (i) direct costs of administration and enforcement of the Act, including the review of applications for permits and inspection of *buildings*, and
  - (ii) indirect costs of administration and enforcement of the Act, including support and overhead costs, and
- (d) if a reserve fund has been established for any purpose relating to the administration or enforcement of the Act, the amount of the fund at the end of the 12-month period referred to in Clause (a).

(2) The *principal authority* shall give notice of the preparation of a report under subsection 7(4) of the Act to every person and organization that has requested that the *principal authority* provide the person or organization with such notice and has provided an address for the notice.

#### 1.9.1.2. Change of Fees

- (1) Before passing a by-law, regulation or resolution under clause 7(1)(c) of the Act to introduce or change a fee imposed for applications for a permit or for the issuance of a permit, a *principal authority* shall
- (a) hold at least one public meeting at which any person who attends has an opportunity to make representations with respect to the matter,

- (b) ensure that a minimum of 21 days notice of the public meeting is given in accordance with Clause (c), including giving 21 days notice to every person and organization that has, within five years before the day of the public meeting, requested that the *principal authority* provide the person or organization with such notice and has provided an address for the notice,
- (c) ensure that the notice under Clause (b),
  - (i) sets out the intention of the *principal authority* to pass the by-law, regulation or resolution under section 7 of the Act and whether the by-law, regulation or resolution would impose any fee that was not in effect on the day the notice is given or would change any fee that was in force on the day the notice is given,
  - (ii) is sent by regular mail to the last address provided by the person or organization that requested the notice in accordance with Clause (b), and
  - (iii) sets out the information described in Clause (d) or states that the information will be made available at no cost to any member of the public upon request, and
- (d) make the following information available to the public:
  - (i) an estimate of the costs of administering and enforcing the Act by the *principal authority*,
  - (ii) the amount of the fee or of the change to the existing fee, and
  - (iii) the rationale for imposing or changing the fee.





**Part 2**
**Alternative Solutions, Disputes, Rulings and Interpretations**

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## Part 2

### Alternative Solutions, Disputes, Rulings and Interpretations

#### Section 2.1. Alternative Solutions

##### 2.1.1. Documentation of Alternative Solutions

###### 2.1.1.1. Documentation

(1) The person proposing the use of an *alternative solution* shall provide documentation to the *chief building official* or *registered code agency* that

- (a) identifies applicable objectives, functional statements and acceptable solutions, and

- (b) establishes on the basis of past performance, tests described in Article 2.1.1.2. or other evaluation that the proposed alternative solution will achieve the level of performance required under Article 1.2.1.1. of Division A.

(2) The documentation described in Sentence (1) shall include information about relevant assumptions, limiting or restricting factors, testing procedures, studies or *building* performance parameters, including any commissioning, operational and maintenance requirements.

###### 2.1.1.2. Tests

(1) Where no published test method to establish the suitability of an *alternative solution* proposed under Article 2.1.1.1. exists, then the tests used for the purposes of that Article shall be designed to simulate or exceed anticipated service conditions or shall be designed to compare the performance of the material or system with a similar material or system that is known to be acceptable.

(2) The results of tests or evaluations based on test standards other than as described in this Code may be used for the purposes of Sentence (1) if the alternate test standards provide comparable results.

## **Section 2.2. Building Code Commission**

### **2.2.1. Hearings**

#### **2.2.1.1. Divisions**

(1) The Building Code Commission may sit in two or more divisions simultaneously so long as a quorum of each division is present.

#### **2.2.1.2. Single Member**

(1) One member of the Building Code Commission may, with the approval of the chair or vice-chair, hear and determine any dispute set out in Sentence (2) and, for that purpose, the member has all the jurisdiction and powers of the Commission.

(2) The disputes referred to in Sentence (1) are:

- (a) any dispute described in clause 24(1)(a) of the Act respecting the sufficiency of compliance with technical requirements of this Code related to *sewage systems*, and
- (b) any dispute described in clauses 24(1)(b) or (c) of the Act.

#### **2.2.1.3. Time Period**

(1) A hearing to decide a dispute described in Clause 2.2.1.2.(2)(b) shall be held not more than five days after the Commission receives an application for a hearing in a form approved by the Commission.

(2) The time period described in Sentence (1) commences on the day after the Commission receives the application and excludes Saturdays, holidays and all other days when the offices of the Government of Ontario are not open for the transaction of business with the public.

#### **2.2.1.4. Eligibility**

(1) No member of the Commission shall be:

- (a) a member of the public service of Ontario,
- (b) an employee of a *principal authority*, or
- (c) a person who is registered under Article 3.4.3.2. as a *registered code agency*, an officer, director, partner or employee of a *registered code agency* or a person engaged by a *registered code agency* to perform functions under the Act on behalf of the *registered code agency*.



## Section 2.3. Building Materials Evaluation Commission

### 2.3.1. Application Fee

#### 2.3.1.1. Application Fee

- (1) The fee on an application to the Building Materials Evaluation Commission is \$950.00.

## Section 2.4. Rulings and Interpretations

### 2.4.1. Designated Materials Evaluation Bodies

#### 2.4.1.1. Designated Bodies

- (1) The following body is designated as a materials evaluation body for the purposes of clause 29(1)(a) of the Act:

Canadian Construction Materials Centre of the National Research Council of Canada

### 2.4.2. Minister's Rulings

#### 2.4.2.1. Minister's Rulings

- (1) The *Minister* may impose terms and conditions, including conditions of termination, when making rulings under clause 29(1)(a) of the Act adopting the evaluation report of a materials evaluation body designated in the *building code*.

#### 2.4.2.2. Criteria

- (1) A ruling made under clause 29(1)(c) of the Act may only approve the use of an alternative material, system or *building* design in a manner
- (a) that will, in the opinion of the *Minister*, achieve the level of performance that is required by this Code, and
  - (b) that is consistent with,
    - (i) a decision of the Building Code Commission in respect of a dispute described in clause 24(1)(a) of the Act,
    - (ii) an approval of the use of the material, system or *building* design in the whole of another province or territory in accordance with the law of that province or territory, or

- r<sub>1</sub> (iii) a revision of the CCBFC, "National Building Code of Canada" or the CCBFC, "National Plumbing Code of Canada" that has been approved by the Canadian Commission on Building and Fire Codes.

### **2.4.3. Interpretations By Minister**

#### **2.4.3.1. Interpretations By Minister**

- (1) Every interpretation issued by the *Minister* under section 28.1 of the Act shall be made available to the public
- (a) by posting the interpretation on the *Building Code website*, and
  - (b) by providing a written copy of the interpretation on receipt of a request for it.

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## **Part 3**

### **Qualifications**

#### **Section 3.1. Qualifications for Chief Building Officials and Inspectors**

##### **3.1.1. Scope**

##### **3.1.1.1. Scope**

- (1) Except as provided in Sentence (2), this Section prescribes, for the purposes of subsections 15.11(1), (2) and (3) of the Act
  - (a) the qualifications that a person must satisfy to be appointed and to remain appointed as
    - (i) a *chief building official* under the Act, or
    - (ii) an *inspector* who has the same powers and duties as a *chief building official* in relation to *plumbing*,
  - (b) the qualifications that a person must satisfy to be appointed and to remain appointed as
    - (i) an *inspector* who has the same powers and duties as a *chief building official* in relation to *sewage systems*, or
    - (ii) an *inspector* whose duties include plans review or inspection under the Act of *sewage systems*, and
  - (c) the qualifications that a person must satisfy to be appointed and to remain appointed as an *inspector* under the Act, other than an *inspector* described in Subclause (a)(ii) or (b)(i) or (ii).
- (2) The qualification requirements for *chief building officials* and *inspectors* in Sentence (1) do not apply to plan review and inspection of
  - (a) site services including
    - (i) surface drainage, and
    - (ii) *plumbing* located underground either outside a *building* or under a *building*,
  - (b) *construction* of a factory-built house certified to CAN/CSA-A277, "Procedure for Certification of Factory-Built Houses",
  - (c) *construction* of a mobile home conforming to CAN/CSA-Z240 Series, "Mobile Homes",
  - (d) *construction* of a park model trailer conforming to CAN/CSA-Z241 Series, "Park Model Trailers", or
  - (e) signs.

### 3.1.2. Chief Building Officials

#### 3.1.2.1. Qualifications

- (1) The following are prescribed as qualifications for a person to be appointed and to remain appointed under the Act as a *chief building official* or as an *inspector* who has the same powers and duties as a *chief building official* in relation to *sewage systems* or *plumbing*
- (a) the person shall successfully complete the examination program administered or authorized by the Ministry of Municipal Affairs and Housing relating to the person's knowledge of the Act and this Code and the powers and duties of *chief building officials*,
  - (b) if, under subsection 22(2) of the Act, the person will also exercise any of the powers or perform any of the duties of an *inspector*, the person shall also have the qualifications contained in Sentence 3.1.4.1.(1), and
  - (c) the person shall file the information set out in Sentence 3.1.6.1.(1) with the *director* in a form established by the *director*.
- (2) An *inspector* who has the same powers and duties as a *chief building official* in relation to *sewage systems* and who had, on August 31, 2003, the qualification described in Article 2.11.3.1. of Ontario Regulation 403/97 (Building Code), as it read on that day
- (a) shall be deemed to have successfully completed the examination program described in Clause (1)(a),
  - (b) shall be deemed to have successfully completed the examination program described in Clause 3.1.4.1.(1)(a) in the category of qualification described in Column 3 of Row 10 of Table 3.5.2.1., and
  - (c) shall be deemed to have filed with the *director* the information required in Clause (1)(c) if the person filed with the *director*, before the day this Article came into force, the information required under Article 2.11.3.1. of Ontario Regulation 403/97 (Building Code), as that Article read on August 31, 2003.

### 3.1.3. Supervisors and Managers

#### 3.1.3.1. Qualifications

- (1) The following are prescribed as the qualifications for a person to be appointed and to remain appointed under the Act as an *inspector* whose duties are solely the supervision or management of *inspectors*

- (a) the person shall successfully complete the examination program administered or authorized by the Ministry of Municipal Affairs and Housing of the person's knowledge of the Act and this Code and the powers and duties of *chief building officials*,
- (b) the person shall successfully complete the examination program administered by the Ministry of Municipal Affairs and Housing of the person's knowledge of the Act and this Code related to any one category of qualification set out in Column 3 of Table 3.5.2.1., and
- (c) the person shall file the information set out in Sentence 3.1.6.1.(1) with the *director* in a form established by the *director*.

### **3.1.4. Inspectors**

#### **3.1.4.1. Qualifications**

- (1) Except as provided in Article. 3.1.4.2., the following are prescribed as qualifications for a person to be appointed and to remain appointed under the Act as an *inspector* whose duties include plans review or inspection under the Act
  - (a) the person shall successfully complete the examination program administered or authorized by the Ministry of Municipal Affairs and Housing relating to the person's knowledge of the Act and this Code in the category or categories of qualifications in Column 3 of Table 3.5.2.1. that correspond to the types of *buildings* set out in Column 4 of Table 3.5.2.1. in respect of which the person will exercise the powers or perform the duties of an *inspector* under the Act,
  - (b) the person shall file the information set out in Sentence 3.1.6.1.(1) with the *director* in a form established by the *director*.
- (2) An *inspector* who had, on August 31, 2003, the qualification described in Article 2.11.3.1., of Ontario Regulation 403/97 (Building Code), as that Article read on August 31, 2003
  - (a) shall be deemed to have successfully completed the examination program described in Clause (1)(a) in the category of qualification described in Column 3 of Row 10 of Table 3.5.2.1., and
  - (b) shall be deemed to have filed with the *director* the information required in Clause (1)(b) if the person filed with the *director*, before September 1, 2003, the information required under Article 2.11.3.1. of Ontario Regulation 403/97 (Building Code), as that Article read on August 31, 2003.

### 3.1.4.2. Qualifications for Intern Inspectors

(1) A person appointed under the Act as an intern *inspector* whose duties include supervised plans review or inspection under the Act is exempt from the requirements in Article 3.1.4.1. if

- (a) the person is enrolled in an internship program approved by the *Minister*, and
- (b) the person is supervised by an *inspector* or *chief building official* who meets the category of qualification in respect of which the person will exercise the powers or perform the duties.

(2) An intern *inspector* described in Clause (1)(a) shall not issue orders under the Act except orders under subsections 12(2) or 13(1) of the Act.

(3) An intern *inspector* described in Clause (1)(a) shall not undertake a site inspection of a *building* related to a notice in respect of

- (a) substantial completion of footings and *foundations* prior to commencement of backfilling, or
- (b) completion of *construction* and installation of components required to permit the issuance of an occupancy permit under Sentence 1.3.3.1.(2) or to permit occupancy under Sentence 1.3.3.2.(1), if the *building* or part of the *building* to be occupied is not fully completed.

### 3.1.5. Updating of Qualifications

#### 3.1.5.1. Updating of Qualifications

(1) When an examination that is part of an examination program referred to in Clause 3.1.2.1.(1)(a), 3.1.3.1.(1)(a) or (b) or 3.1.4.1.(1)(a) or (b) is replaced with a new examination, the *director* shall give notice of the new examination to every person who has, pursuant to Clause 3.1.2.1.(1)(c), 3.1.3.1.(1)(c) or 3.1.4.1.(1)(c), informed the *director* that the person completed the examination before it was replaced or who is deemed to have successfully completed the examination program.

(2) The *director* may give the notice referred to in Sentence (1) by sending it by regular letter mail to the last address of the person filed with the *director*.

(3) It is a prescribed qualification for the purposes of subsections 15.11(1), (2) and (3) of the Act that, not later than 180 days after the day on which a notice referred to in Sentence (1) is sent, the person to whom the notice is given shall

- (a) successfully complete all new examinations referred to in the notice, and
- (b) file the information set out in Sentence 3.1.6.1.(1) with the *director* in a form established by the *director*.

### **3.1.6. Information**

#### **3.1.6.1. Qualifications**

- (1) The information referred to in Clauses 3.1.2.1.(1)(c), 3.1.3.1.(1)(c), 3.1.4.1.(1)(c) and 3.1.5.1.(3)(b) is the following
  - (a) the person's name, residence address and residential mailing address, if different from the residence address,
  - (b) the name and address of every *principal authority* that has appointed the person as a *chief building official* or *inspector* under the Act, and
  - (c) information about the examinations that the person has successfully completed, in such form and in such detail as may be required by the *director*.
- (2) A person who files information under Sentence (1) with the *director* shall advise the *director* of any change of the information not later than 15 days after the change.

### **3.1.7. Fees**

#### **3.1.7.1. Fees**

- (1) The fee payable upon the filing of information under Clause 3.1.2.1.(1)(c), 3.1.3.1.(1)(c), 3.1.4.1.(1)(c) or 3.1.5.1.(3)(b) is \$80.
- (2) The amount of a fee referred to in Sentence (1) is reduced by \$10 if the information is filed and the fee is paid in accordance with a means of electronic filing and payment specified by the *director*.
- (3) The Ministry of Municipal Affairs and Housing may charge a fee to a person who takes an examination for the purposes of this Section.

### **3.1.8. Public Register**

#### **3.1.8.1. Public Register**

- (1) The *director* shall establish and maintain a register available to the public listing every person who has the qualifications required by

subsections 15.11(1), (2) and (3) of the Act and has been appointed as a *chief building official* or *inspector* by a *principal authority*.

(2) The register referred to in Sentence (1) shall contain the following information with respect to each person listed in it

- (a) the name of the person,
- (b) any identifying number assigned by the *director* to that person,
- (c) the name of each *principal authority* that has appointed the person as a *chief building official* or *inspector*, and
- (d) the qualifications of the person.

### **3.1.9. Categories of Qualifications**

#### **3.1.9.1. Categories**

(1) Table 3.5.2.1. contains the categories of qualifications for the purposes of this Section.

## **Section 3.2. Qualifications for Designers**

### **3.2.1. Scope**

#### **3.2.1.1. Scope**

(1) This Section prescribes, for the purposes of clause 8(2)(c) and subsection 15.11(5) of the Act, the qualifications for a person who carries out *design activities* after December 31, 2005.

### **3.2.2. General**

#### **3.2.2.1. Persons Engaged in the Business of Providing Design Activities to the Public**

(1) Every person engaged in the business of providing *design activities* to the public, other than a person who is the holder of a Certificate of Practice or a Temporary Licence issued under the *Architects Act*, must have the qualification set out in Sentence 3.2.4.1.(1).

### 3.2.2.2. Other Designers

- (1) Every person who carries out *design activities*, other than an *architect*, must have the qualifications set out in Sentence 3.2.5.1.(1) if the person is not required to have the qualification set out in Sentence 3.2.4.1.(1).

### 3.2.3. Definition

#### 3.2.3.1. Definition

- (1) In this Section,

*registered* means registered under Article 3.2.4.2.

### 3.2.4. Qualifications - Persons Engaged in the Business of Providing Design Activities to the Public

#### 3.2.4.1. General

- (1) Except as provided in Sentences (3) and (4), every person engaged in the business of providing *design activities* to the public must have the following qualification
- (a) the person must be *registered* with the *director*.
  - (2) A registration shall be in a form established by the *director*.
  - (3) A person is exempt from the requirement to comply with the qualification in Sentence (1) if the person's *design activities* relate only to
    - (a) *construction* of a home as defined under the *Ontario New Home Warranties Plan Act* that will be constructed or sold by that person, if the person is a builder or vendor as defined in that Act and is registered under that Act,
    - (b) *construction* of a *building* that is owned by that person,
    - (c) *construction* of a *farm building* that is,
      - (i) of *low human occupancy*,
      - (ii) of 2 storeys or less in *building height*, and
      - (iii) has a *building area* of less than 600 m<sup>2</sup>,
    - (d) the extension, material alteration or repair of a detached house, semi-detached house, townhouse or row house containing not more than two *dwelling units* in each house,

- (e) a *sewage system* to be constructed by that person if the person is registered under Article 3.3.3.2.,
- (f) *construction* of tents described in Sentence 3.14.1.2.(2) in Division B,
- (g) *construction* of signs,
- (h) *construction* of site services, including
  - (i) surface drainage, and
  - (ii) *plumbing* located underground, either outside a *building* or under a *building*,
- (i) *construction* of a factory-built house certified to CAN/CSA-A277, "Procedure for Certification of Factory-Built Houses",
- (j) *construction* of a mobile home conforming to CAN/CSA-Z240 Series, "Mobile Homes",
- (k) *construction* of a park model trailer conforming to CAN/CSA-Z241 Series, "Park Model Trailers",
- (l) *construction* of pre-engineered elements of a *building* if the design of the elements is carried out by a person competent in the specific discipline appropriate to the circumstances,
- (m) *construction* of appliances, equipment and similar incidental components of a *building*, or
- (n) *construction* of a *building* for which a permit under section 8 of the Act is applied for or issued before January 1, 2006 and for which *construction* is commenced within six months after the permit is issued.

(4) A person is exempt from the requirements to comply with the qualification in Sentence (1) if the person's *design activities* are with respect to a detached house, semi-detached house, townhouse or row house containing not more than two *dwelling units* in each house and the *design activities* relate only to

- (a) a *plumbing* system,
- (b) a heating, ventilation and *air conditioning* system, or
- (c) ancillary *buildings* such as garages.

### 3.2.4.2. Registration and Renewal of a Registration

- (1) Subject to Article 3.2.4.9., the *director* may register an applicant, or renew a registration, in each class of registration applied for, if
- (a) the applicant or *registered* person or, if the applicant or *registered* person is a corporation or partnership, a director, officer, partner or employee of the applicant or *registered* person, has successfully completed the examination program administered or authorized by the Ministry of Municipal Affairs and Housing relating to the person's knowledge of the Act and this Code in the category of





qualification set out on Column 3 of Table 3.5.2.1. that corresponds to each class of registration set out in Column 2 of Table 3.5.2.1. for which application is made,

- (b) all persons who will review and take responsibility for *design activities* provided to the public by the applicant or *registered* person for the purposes of Clause 3.2.4.7.(1)(d) have successfully completed the examination program administered or authorized by the Ministry of Municipal Affairs and Housing relating to the person's knowledge of the Act and this Code in the category of qualification set out on Column 3 of Table 3.5.2.1. that correspond to each class of registration set out in Column 2 of Table 3.5.2.1. for which application is made,
- (c) the applicant or *registered* person is covered by the insurance required under Subsection 3.6.2. during the term of the registration applied for,
- (d) the application is complete, and
- (e) all fees required under Article 3.2.4.5. are paid.

### **3.2.4.3. Application for Registration or Renewal of a Registration**

- (1) An application for registration or renewal of a registration shall be made to the *director* in a form established by the *director*.
- (2) An application for renewal of a registration shall be made at least 60 days before the expiry of the registration to be renewed.
- (3) An application for registration or renewal of a registration shall include an undertaking by the applicant or *registered* person to comply with the conditions set out in Article 3.2.4.7.
- (4) If a partnership or a corporation is the applicant for registration or renewal of registration, the application shall set out the names and residence addresses of all of its partners, directors or officers, as the case may be.
- (5) An application for registration or renewal of a registration shall contain the names of all partners, directors, officers or employees of the applicant or *registered* person, as the case may be, and all other persons engaged by the applicant or *registered* person who
  - (a) have the qualifications set out in Clause 3.2.4.2.(1)(a) in the class or classes of registration for which the application is made, and

- (b) have the qualifications set out in Clause 3.2.4.2.(1)(b) and will review and take responsibility for the *design activities* provided to the public by the applicant or *registered* person in the class or classes of registration for which the application is made.
- (6) An application for registration or renewal of a registration shall contain evidence, provided by the applicant or *registered* person, that the persons referred to in Sentence (5) meet the qualifications set out in Clauses 3.2.4.2.(1)(a) and (b).
- (7) An application for registration or renewal of a registration shall contain evidence, provided by the applicant or *registered* person, that the applicant or *registered* person is covered by the insurance required under Subsection 3.6.2. during the term of the registration applied for.

#### **3.2.4.4. Term**

- (1) A registration expires one year after it is issued but the *director* may, for the purposes of staggering the renewal dates of the registrations, issue the initial registration for a term of not less than 90 days and not more than 18 months.

#### **3.2.4.5. Fees**

- (1) The fee for a registration is \$125.
- (2) The fee for a *registered* person to add a new class of registration is \$25.
- (3) The fee for renewal of a registration is \$80.
- (4) The amount of a fee referred to in Sentence (1), (2) or (3) is reduced by 15 per cent and rounded to the nearest whole dollar if the application is made and the fee is paid in accordance with a means of electronic filing and payment specified by the *director*.
- (5) The Ministry of Municipal Affairs and Housing may charge a fee to a person who takes an examination for the purposes of this Subsection.



### 3.2.4.6. Not Transferable

- (1) A registration is not transferable.

### 3.2.4.7. Conditions

- (1) The following are the conditions of a registration
- (a) the *registered* person shall carry out *design activities* only in respect of the type of *building* described in Column 4 of Table 3.5.2.1. that correspond to the class or classes of registration held by the *registered* person,
  - (b) if the *registered* person is a corporation or partnership, there must throughout the term of the registration be an officer, director, partner or employee of the *registered* person who has the qualifications set out in Clause 3.2.4.2.(1)(a) for each class of registration set out in Column 2 of Table 3.5.2.1. that is held by the *registered* person,
  - (c) not more than 180 days after the day a notice is given under Sentence 3.2.4.8.(1) by the *director* to the *registered* person, the *registered* person shall,
    - (i) ensure that the *registered* person and the persons described in Clause (b) have successfully completed all new examinations referred to in the notice, and
    - (ii) provide the following information to the *director*:
      - (A) the names of all persons described in Subclause (i), and
      - (B) information about the examinations that the persons described in Subclause (i) have successfully completed, in such form and in such detail as may be required by the *director*.
  - (d) the *registered* person shall ensure that a person described in Clause (b) or another person who has the qualifications set out in Clause 3.2.4.2.(1)(b) in respect of the class of registration set out in Column 2 of Table 3.5.2.1. to which the *design activities* relate will review and take responsibility for *design activities* in each class of registration that are provided to the public by the *registered* person,
  - (e) not more than 180 days after the day when a notice is given under Sentence 3.2.4.8.(1) by the *director* to the *registered* person, the *registered* person shall,
    - (i) ensure that persons described in Clause (d) who will review and take responsibility for *design activities* provided to the public by the *registered* person in the class of registration to which the notice relates, have successfully completed all new examinations referred to in the notice, and

- (ii) provide the following information to the *director*:
  - (A) the names of all persons described in Subclause (i), and
  - (B) information about the examinations that the persons referred to in Subclause (i) have successfully completed, in such form and in such detail as may be required by the *director*,
- (f) the *registered* person shall ensure that a person described in Clause (d) who reviews and takes responsibility for *design activities* provided to the public by the *registered* person shall include the following information on any document submitted to a *chief building official* or *registered code agency* in the circumstances set out in subsection 15.11 (5) of the Act:
  - (i) the name of the *registered* person and any registration number issued to the *registered* person by the *director*,
  - (ii) a statement that the person has reviewed and taken responsibility for the *design activities*,
  - (iii) the person's name and any identifying number issued to the person by the *director* in respect of the qualifications described in Clause 3.2.4.2.(1)(b), and
  - (iv) the person's signature,
- (g) the *registered* person shall, during the term of the registration, be covered by the insurance required under Subsection 3.6.2.,
- (h) the *registered* person shall, within 15 days after the event, notify the *director* in writing of,
  - (i) any change in address of the *registered* person for correspondence relating to the registration, and
  - (ii) any change in the information set out in Sentences 3.2.4.3.(4) and (5),
- (i) the *registered* person shall give prompt written notice to the *director* of any material change in any of the information, other than the information referred to in Clause (h), that is contained in or accompanies an application for registration or renewal of a registration,
- (j) the *registered* person shall, from time to time, at the *registered* person's expense, give the *director* such documents or information relating to the registration or to activities carried out under the registration as the *director* may reasonably require,
- (k) the *registered* person shall allow the representatives of the *director* access to the *registered* person's books and records during normal business hours for the purpose of confirming matters related to the registration.



### 3.2.4.8. Updating of Qualifications

- (1) Where an examination referred to in Clause 3.2.4.2.(1)(a) or (b) is replaced with a new examination, the *director* shall give notice of the new examination to every *registered* person who is registered in a class of registration to which the new examination relates.
- (2) The *director* may give the notice referred to in Sentence (1) by sending it by regular letter mail to the last address of the *registered* person that has been provided to the *director*.

### 3.2.4.9. Suspension, Revocation, Refusal to Register or Renew a Registration

- (1) The *director* may, in the circumstances set out in Sentence (2)
  - (a) refuse to *register* an applicant or to renew a registration, or
  - (b) suspend or revoke a registration.
- (2) The circumstances referred to in Sentence (1) are
  - (a) the *registered* person is in contravention of the Act or this Code,
  - (b) the *registered* person is in breach of a condition of the registration other than the condition set out in Clause 3.2.4.7.(1)(g),
  - (c) the registration was issued on the basis of mistaken, false or incorrect information,
  - (d) the *director* is of the opinion that the past conduct of the applicant or *registered* person or, if the applicant or *registered* person is a partnership or a corporation, the partners, officers or directors of the *registered* person, as the case may be, affords reasonable grounds for belief that the business that would be or is authorized by the registration will not be carried on in accordance with law,
  - (e) the application is incomplete, or
  - (f) any fees required under Article 3.2.4.5. remain unpaid.
- (3) If the *director* proposes to refuse to register or renew a registration or proposes to suspend or revoke a registration under Sentence (1), the *director* shall serve a notice of the proposal, together with the reasons for it, on the applicant or *registered* person.
- (4) A notice under Sentence (3) shall state that the applicant or *registered* person is entitled to a hearing before the *Tribunal* if the applicant or *registered* person, within 15 days after service of the notice referred to in Sentence (3), serves the *director* and the *Tribunal* with notice in writing requesting a hearing.

- (5) If the applicant or *registered* person does not request a hearing by the *Tribunal* in accordance with Sentence (4), the *director* may carry out the proposal stated in the notice under Sentence (3).
- (6) If the applicant or *registered* person requests a hearing before the *Tribunal* in accordance with Sentence (4), the *Tribunal* shall appoint a time for and hold a hearing and may by order direct the *director* to carry out the *director's* proposal or refrain from carrying it out and to take such other action as the *Tribunal* considers the *director* ought to take in accordance with the Act and this Code, and for those purposes the *Tribunal* may substitute its opinion for that of the *director*.
- (7) The *director*, the applicant or *registered* person who requested the hearing, and such other persons as the *Tribunal* may specify, are parties to proceedings before the *Tribunal*.
- (8) Sentences (3) to (7) do not apply and the *director* may cancel the registration of a *registered* person upon receipt of a request in writing for cancellation from the *registered* person in a form established by the *director*.
- (9) If, within the time period set out in Sentence 3.2.4.3.(2), *registered* person has applied for renewal of a registration, paid the fee required under Article 3.2.4.5. and provided evidence satisfactory to the *director* that the *registered* person is covered by insurance required under Subsection 3.6.2. for the term of the renewal of the registration, the registration shall be deemed to continue until the earliest of
- (a) the day the registration is renewed,
  - (b) if the *registered* person is served with notice that the *director* proposes to refuse to renew the registration, the day the time for giving notice requesting a hearing expires or, if a hearing is held, the day the *Tribunal* makes its order, and
  - (c) the day when the *registered* person ceases to be covered by the insurance required under Subsection 3.6.2.

### **3.2.4.10. Mandatory Suspension or Revocation of Registration or Refusal to Register or Renew Registration**

- (1) The *director* shall, in the circumstances set out in Sentence (2)
- (a) refuse to register an applicant,
  - (b) refuse to renew a registration, or
  - (c) suspend or revoke a registration.



- (2) The circumstances referred to in Sentence (1) are that
- (a) the applicant or *registered* person is not covered by the insurance required under Subsection 3.6.2., or
  - (b) an order under subsection 69(2) of the *Provincial Offences Act* is in effect directing that the registration of the person be suspended and no registration be issued to the person until a fine is paid.
- (3) If the *director* refuses to register an applicant, refuses to renew a registration or suspends or revokes a registration under Sentence (1), the *director* shall serve a notice of the refusal, suspension or revocation, together with the reasons for it, on the *registered* person.
- (4) A suspension or revocation of a registration under Sentence (1) takes effect immediately and the commencement of a proceeding before the *Tribunal* does not stay the operation of the suspension or revocation of the registration.
- (5) A notice under Sentence (3) shall state that the *registered* person is entitled to a hearing before the *Tribunal* if the *registered* person, within 15 days after service of the notice referred to in Sentence (3), serves the *director* and the *Tribunal* with notice in writing requesting a hearing.
- (6) The *Tribunal* may, on the application of the *registered* person, stay the operation of a decision of the *director* to suspend or revoke the registration and may grant the stay subject to conditions.
- (7) If a *registered* person requests a hearing before the *Tribunal* in accordance with Sentence (5), the *Tribunal* shall appoint a time for and hold a hearing and may by order confirm, alter or revoke the decision of the *director* to refuse to register or to suspend or revoke the registration, as the case may be, and may take such action as the *Tribunal* considers the *director* ought to take in accordance with the Act and this Code, and for those purposes the *Tribunal* may substitute its opinion for that of the *director*.
- (8) The *director* and the *registered* person who requested the hearing, and such other persons as the *Tribunal* may specify, are parties to proceedings before the *Tribunal*.

### 3.2.5. Qualifications - Other Designers

#### 3.2.5.1. General

- (1) Except as provided in Sentence (2), a person who carries out *design activities* but is not required under Sentence 3.2.4.1.(1) to be registered with the *director* must have the following qualifications
- (a) he or she shall successfully complete the examination program administered or authorized by the Ministry of Municipal Affairs and Housing relating to his or her knowledge of the Act and this Code in the category of qualification set out in Column 3 of Table 3.5.2.1. that corresponds to the type of *buildings* described in Column 4 of Table 3.5.2.1. for which the person carries out *design activities*,
  - (b) he or she shall file the information set out in Sentence 3.2.5.3.(1) with the *director* in a form established by the *director*, and
  - (c) he or she shall include the following information on any document respecting *design activities* that the person has reviewed and taken responsibility for and that is submitted to a *chief building official* or *registered code agency* in the circumstances set out in subsection 15.11(5) of the Act:
    - (i) the person's name and any identifying number issued to the person issued by the *director* in respect of the qualifications described in Clause (a),
    - (ii) a statement that the person has reviewed and taken responsibility for the *design activities*, and
    - (iii) the person's signature.
- (2) A person is exempt from the requirement to comply with the qualifications in Sentence (1) if his or her *design activities* relate only to
- (a) *design activities* in respect of which a person described in Clause 3.2.4.7.(1)(d) or who has the qualifications required under Sentence (1) will review and take responsibility,
  - (b) *construction* of:
    - (i) a detached house, semi-detached house, townhouse or row house owned by the person and containing not more than two *dwelling units* in each house, or
    - (ii) an ancillary *building* that serves a *building* described in Subclause (i),
  - (c) *construction* of a *farm building* that
    - (i) is of low human occupancy,
    - (ii) is 2 storeys or less in *building height*, and
    - (iii) has a *building area* of less than 600 m<sup>2</sup>,



- (d) a *sewage system* to be *constructed* by that person and:
  - (i) the person is *registered* under Article 3.3.3.2., or
  - (ii) the *sewage system* is owned by the person,
- (e) *construction* of tents described in Sentence 3.14.1.2.(2) in Division B,
- (f) *construction* of signs,
- (g) *construction* of site services including
  - (i) surface drainage, and
  - (ii) *plumbing* located underground either outside a *building* or under a *building*,
- (h) *construction* of pre-engineered elements of a *building* provided that the design of the elements is carried out by a person competent in the specific discipline appropriate to the circumstances,
- (i) *construction* of appliances, equipment and similar incidental components of a *building*,
- (j) *construction* of an ancillary *building*
  - (i) that serves a detached house, semi-detached house, townhouse or row house if the house contains not more than two *dwelling units*, and
  - (ii) that does not exceed 50 m<sup>2</sup> *building area*, or
- (k) *construction* of a *building* for which a permit under section 8 of the Act is applied for or issued before January 1, 2006 and for which *construction* commences within six months after the permit is issued.

### 3.2.5.2. Updating of Qualifications

- (1) When an examination that is part of an examination program referred to in Clause 3.2.5.1.(1)(a) is replaced with a new examination, the *director* shall give notice of the new examination to every person who has, pursuant to Clause 3.2.5.1.(1)(b), informed the *director* that he or she has completed the examination before its replacement.
- (2) The *director* may give the notice referred to in Sentence (1) by sending it by regular letter mail to the last address of the person that has been filed with the *director*.
- (3) It is a prescribed qualification for the purposes of clause 8(2)(c) and subsection 15.11(5) of the Act that, not more than 180 days after the day on which the notice referred to in Sentence (1) is given, the person to whom the notice is given shall
  - (a) successfully complete all new examinations referred to in the notice, and
  - (b) file the information set out in Sentence 3.2.5.3.(1) with the *director* in a form established by the *director*.

### 3.2.5.3. Information

- (1) The information referred to in Clauses 3.2.5.1.(1)(b) and 3.2.5.2.(3)(b) is the following
  - (a) the person's name, residence address and residential mailing address, if different from the residence address, and
  - (b) information about the examinations that the person has successfully completed, in such detail as may be required by the *director*.
- (2) A person who has filed information under Sentence (1) with the *director* shall advise the *director* of any change of address within 15 days of the change.

### 3.2.5.4. Fees

- (1) The fee payable upon the filing of information referred to in Clauses 3.2.5.1.(1)(b) or 3.2.5.2.(3)(b) is \$80.
- (2) The amount of a fee referred to in Sentence (1) is reduced by \$10 if the information is filed and the fee is paid in accordance with a means of electronic filing and payment specified by the *director*.
- (3) The Ministry of Municipal Affairs and Housing may charge a fee to a person who takes an examination for the purposes of this Section.

## 3.2.6. Public Register

### 3.2.6.1. Public Register

- (1) The *director* shall establish and maintain a register available to the public that lists every person who has the qualifications required by clause 8(2)(c) and subsection 15.11(5) of the Act.
- (2) The register referred to in Sentence (1) shall contain the following information in respect of every *registered* person
  - (a) the name of the *registered* person,
  - (b) any identifying number assigned by the *director* to the *registered* person,
  - (c) the business address of the *registered* person,
  - (d) classes of registration of the *registered* person,
  - (e) the names of the person or persons who will review and take responsibility for *design activities* carried out by the *registered* person in each class of registration, and



(f) any identifying number assigned by the *director* to the person or persons referred to in Clause (e).

(3) The register referred to in Sentence (1) shall contain the following information in respect of persons who have the qualifications referred to in Sentence 3.2.5.1.(1)

- (a) the name of the person,
- (b) any identifying number assigned by the *director* to the person,
- (c) the qualifications of that person.

### **3.2.7. Classes of Registration and Categories of Qualifications**

#### **3.2.7.1. Classes and Categories**

(1) Table 3.5.2.1. contains the classes of registration and categories of qualifications for the purposes of this Section.

### **Section 3.3. Qualifications for Persons Engaged in the Business of Constructing On Site, Installing, Repairing, Servicing, Cleaning or Emptying Sewage Systems**

#### **3.3.1. Scope**

##### **3.3.1.1. Scope**

(1) This Section prescribes, for the purposes of subsection 15.12(1) of the Act, the qualifications for persons engaged in the business of *constructing on site, installing, repairing, servicing, cleaning or emptying sewage systems*.

#### **3.3.2. Definition**

##### **3.3.2.1. Definition**

(1) In this Section,

*registered* means registered under Article 3.3.3.2.

### 3.3.3. Qualifications

#### 3.3.3.1. General

(1) Commencing on the day this Section comes into force, persons engaged in the business of *constructing* on site, installing, repairing, servicing, cleaning or emptying *sewage systems* shall have the following qualification

(a) the person must be *registered* with the *director*,

(2) A registration shall be in a form established by the *director*.

(3) A person is exempt from the requirement to comply with the qualification in Sentence (1) in respect of the activities of cleaning and emptying *sewage systems* if the person has been issued a certificate of approval under section 39 of the *Environmental Protection Act* in respect of the activities of cleaning and emptying *sewage systems*.

#### 3.3.3.2. Registration and Renewal of a Registration

(1) Subject to Article 3.3.3.9., the *director* may register an applicant, or renew a *registered* person's registration, if

(a) all persons who will supervise *construction* on site, installation, repair, servicing, cleaning or emptying *sewage systems* carried out by the applicant or *registered* person have successfully completed the examination program administered or authorized by the Ministry of Municipal Affairs and Housing relating to the person's knowledge of the Act, this Code and the *construction*, maintenance and operation of *sewage systems*,

(b) the application is complete, and

(c) all fees required under Article 3.3.3.5. are paid.

(2) A person who had, on August 31, 2003, the qualification described in Clause 2.12.4.6.(1)(a) of Ontario Regulation 407/97 (Building Code), as it read on that day, shall be deemed to have successfully completed the examination program described in Clause (1)(a).

#### 3.3.3.3. Application for Registration or Renewal of a Registration

(1) An application for registration or renewal of a registration shall be made to the *director* in a form established by the *director*.

- (2) An application for renewal of a registration shall be made at least 60 days before the expiry of the registration to be renewed.
- (3) An application for registration or renewal of a registration shall include an undertaking by the applicant or *registered* person to comply with the conditions set out in Article 3.3.3.7.
- (4) If a partnership or a corporation is the applicant for registration or renewal of a registration, the application shall set out the names and residence addresses of all its partners, directors or officers, as the case may be.
- (5) An application for registration or renewal of a registration shall contain the names of all partners, directors, officers or employees of the applicant or *registered* person, as the case may be, and all other persons who have been engaged by the applicant or *registered* person, who
  - (a) have the qualifications set out in Clause 3.3.3.2.(1)(a), and
  - (b) will supervise the *construction* on site, installation, repair, servicing, cleaning or emptying of *sewage systems* to be carried out by the applicant or *registered* person.
- (6) An application for registration or renewal of a registration shall contain evidence, provided by the applicant or *registered* person, that the persons referred to in Sentence (5) meet the qualifications set out in Clause 3.3.3.2.(1)(a).

#### **3.3.3.4. Term**

- (1) A registration expires 3 years after the date of its issuance.

#### **3.3.3.5. Fees**

- (1) The fee for a registration or renewal of a registration is \$50.
- (2) The amount of a fee referred to in Sentence (1) is reduced by \$5 if the application is made and the fee is paid in accordance with a means of electronic filing and payment specified by the *director*.
- (3) The Ministry of Municipal Affairs and Housing may charge a fee to a person who takes an examination for the purposes of this Section.

### 3.3.3.6. Not Transferable

- (1) A registration is not transferable.

### 3.3.3.7. Conditions

- (1) The following are the conditions of a registration
  - (a) the *registered* person shall ensure that the *construction* on site, installation, repair, servicing, cleaning or emptying of *sewage systems* carried out by the *registered* person is supervised by a person who has the qualifications set out in Clause 3.3.3.2.(1)(a),
  - (b) not more than 180 days after the day a notice is given under Sentence 3.3.3.8.(1) by the *director* to the *registered* person, the *registered* person shall:
    - (i) ensure that the *construction* on site, installation, repair, servicing, cleaning or emptying of *sewage systems* carried out by the *registered* person is supervised by persons who have successfully completed the new examinations referred to in the notice, and
    - (ii) provide the following information to the *director*:
      - (A) the name of the person or persons carrying out the supervision, and
      - (B) information about the examinations that the person or persons have successfully completed, in such detail as may be required by the *director*,
  - (c) the *registered* person shall, within 15 days after the event, notify the *director* in writing
    - (i) of any change in address of the *registered* person for correspondence relating to the registration, and
    - (ii) of any change in the information set out in Sentences 3.3.3.3.(4) and (5),
  - (d) the *registered* person shall give prompt written notice to the *director* of any material change in any of the information other than the information referred to in Clause (1)(c) that is contained in or accompanies an application for registration or renewal of a registration,
  - (e) the *registered* person shall, from time to time, at the *registered* person's expense, give the *director* such documents or information relating to the registration or to activities carried out under the registration as the *director* may reasonably require, and
  - (f) the *registered* person shall allow the representatives of the *director* access to the *registered* person's books and records during normal business hours for the purpose of confirming matters related to the registration.



### 3.3.3.8. Updating of Qualifications

- (1) When an examination that is part of an examination program referred to in Clause 3.3.3.2.(1)(a) is replaced with a new examination, the *director* shall give notice of the new examination to every *registered* person.
- (2) The *director* may give the notice referred to in Sentence (1) by sending it by regular letter mail to the last address of the *registered* person that has been provided to the *director*.

### 3.3.3.9. Suspension, Revocation, Refusal to Register or Renew a Registration

- (1) The *director* may, in the circumstances set out in Sentence (2)
  - (a) refuse to register an applicant or renew a registration, or
  - (b) suspend or revoke a registration.
- (2) The circumstances referred to in Sentence (1) are
  - (a) the *registered* person is in contravention of the Act or this Code,
  - (b) the *registered* person is in breach of a condition of the registration,
  - (c) the registration was issued on the basis of mistaken, false or incorrect information,
  - (d) the *director* is of the opinion that the past conduct of the applicant or *registered* person or, if the applicant or *registered* person is a partnership or a corporation, the partners, officers or directors of the *registered* person, as the case may be, affords reasonable grounds for belief that the business that would be or is authorized by the registration will not be carried on in accordance with law,
  - (e) an order under subsection 69(2) of the *Provincial Offences Act* is in effect directing that the registration of the person be suspended and that no registration be issued to that person until a fine is paid,
  - (f) the application is incomplete, or
  - (g) any fees required under Article 3.3.3.5. remain unpaid.
- (3) If the *director* proposes to refuse to register or renew a registration or proposes to suspend or revoke a registration, the *director* shall serve a notice of the proposal, together with the reasons for it, on the applicant or *registered* person.

- (4) A notice under Sentence (3) shall state that the applicant or *registered* person is entitled to a hearing before the *Tribunal* if the applicant or *registered* person, within 15 days after service of the notice referred to in Sentence (3), serves the *director* and the *Tribunal* with notice in writing requesting a hearing.
- (5) If an applicant or *registered* person does not request a hearing by the *Tribunal* in accordance with Sentence (4), the *director* may carry out the proposal stated in the notice under Sentence (3).
- (6) If an applicant or *registered* person requests a hearing before the *Tribunal* in accordance with Sentence (4), the *Tribunal* shall appoint a time for and hold a hearing and may by order direct the *director* to carry out the *director's* proposal or refrain from carrying it out and to take such other action as the *Tribunal* considers the *director* ought to take in accordance with the Act and this Code, and for such purposes the *Tribunal* may substitute its opinion for that of the *director*.
- (7) The *director*, the applicant or *registered* person who requested the hearing, and such other persons as the *Tribunal* may specify, are parties to proceedings before the *Tribunal*.
- (8) Sentences (3) to (7) do not apply and the *director* may cancel the registration of a *registered* person upon receipt of a request in writing for cancellation from the *registered* person in a form established by the *director*.
- (9) If, within the time period set out in Sentence 3.3.3.3.(2), a *registered* person has applied for renewal of a registration and paid the fee required under Article 3.3.3.5., the registration shall be deemed to continue until the earlier of
- the day the registration is renewed, and
  - if the *registered* person is served with notice that the *director* proposes to refuse to renew the registration, the day the time for giving notice requesting a hearing expires or, if a hearing is held, until the day the *Tribunal* makes its order.

### **3.3.4. Public Register**

#### **3.3.4.1. Public Register**

- (1) The *director* shall establish and maintain a register available to the public listing every person who has the qualifications required by subsection 15.12(1) of the Act.



- (2) The register referred to in Sentence (1) shall contain the following information with respect to every *registered* person
- (a) the name of the *registered* person,
  - (b) any identifying number assigned by the *director* to the *registered* person,
  - (c) the business address of the *registered* person,
  - (d) the names of the person or persons who will supervise the *construction* on site, installation, repair, servicing, cleaning or emptying *sewage systems* carried out by the *registered* person, and
  - (e) any identifying number assigned by the *director* to the persons referred to in Clause (d).

### **Section 3.4. Qualifications for Registered Code Agencies**

#### **3.4.1. Scope**

##### **3.4.1.1. Scope**

(1) This Section prescribes, for the purposes subsection 15.11(4) of the Act, the qualifications that a person must meet in order to be eligible to be appointed after June 30, 2005 as a *registered code agency* under the Act.

#### **3.4.2. Definition**

##### **3.4.2.1. Definition**

(1) In this Section,

*registered* means registered under Article 3.4.3.2.

#### **3.4.3. Qualifications**

##### **3.4.3.1. General**

- (1) The following are prescribed as qualifications for persons to be appointed under the Act as a *registered code agency*
- (a) the person must be *registered* with the *director*.
- (2) A registration shall be in a form established by the *director*.

### 3.4.3.2. Registration and Renewal of a Registration

(1) Subject to Article 3.4.3.9., the *director* may register an applicant, or renew a *registered* person's registration, in each class of registration applied for if

- (a) the applicant or *registered* person or, if the applicant or *registered* person is a corporation or partnership, a director, officer, partner or employee of the applicant or *registered* person, has successfully completed the examination program administered or authorized by the Ministry of Municipal Affairs and Housing relating to the person's knowledge of the Act and this Code and the powers and duties of a *registered code agency*,
- (b) the applicant or *registered* person or, if the applicant or *registered* person is a corporation or partnership, one or more directors, officers, partners or employees of the applicant or *registered* person, have successfully completed the examination program administered or authorized by the Ministry of Municipal Affairs and Housing relating to the person's knowledge of the Act and this Code in the category of qualification set out in Column 2 of Table 3.5.2.2. that corresponds to each class of registration set out in Column 1 of Table 3.5.2.2. for which application is made,
- (c) all persons who will carry out plans review and inspection activities on behalf of the *registered code agency* have the qualifications set out in Clause (b) in respect of each class of registration for which application is made,
- (d) the applicant or *registered* person has in place a quality management plan referred to in Sentence 3.4.3.3.(3) for carrying out the activities of the applicant or *registered* person under the registration that is acceptable to the *director*,
- (e) the applicant or *registered* person is covered by the insurance required under Subsection 3.6.2, during the term of the registration applied for,
- (f) the application is complete, and
- (g) all fees required under Article 3.4.3.5. are paid.

### 3.4.3.3. Application for Registration or Renewal of a Registration

- (1) An application for registration or renewal of a registration shall be made to the *director* in a form established by the *director*.
- (2) An application for renewal of a registration shall be made at least 60 days before the expiry of the registration being renewed.



- (3) An application for registration or renewal of a registration shall include a quality management plan for carrying out the activities of the applicant or *registered* person under the registration, including, without limitation
- (a) procedures relating to the commencement of activities as a *registered code agency*, including procedures to verify that the applicant or *registered* person is qualified to undertake the activities and to verify that there exists no conflict of interest within the meaning of Sentence 3.7.3.1.(4),
  - (b) identification of the responsibilities of persons who will carry out plans review and inspection activities of the applicant or *registered* person and procedures for the supervision of those persons,
  - (c) procedures for assessing plans and specifications for conformity with this Code, including procedures for the assessment of *alternative solutions*,
  - (d) procedures for inspecting the *construction* of buildings,
  - (e) procedures for receipt of notices that *construction* is ready for inspection and of written reports from *architects* and *professional engineers* arising out of the general review of the *construction* of buildings,
  - (f) procedures for the issuance of certificates and orders under the Act, including the responsibility of the persons with the qualifications set out in Sentences 3.7.5.3.(1) and (2),
  - (g) procedures for referral of matters to a *chief building official* under subsection 14(5) of the Act,
  - (h) procedures for participation of the applicant or *registered* person in proceedings before the Building Code Commission under section 24 of the Act and before the Superior Court of Justice under section 25 of the Act,
  - (i) procedures for documenting the activities of the applicant or *registered* person under the registration, including data control, records retention and the maintenance of security and confidentiality of records, and transferring records to the *principal authority*,
  - (j) procedures for training and supervision of personnel, and
  - (k) procedures for the review and up-dating of the quality management plan.
- (4) An application for registration or renewal of a registration shall include an undertaking by the applicant or *registered* person to comply with the conditions set out in Article 3.4.3.7.

(5) If a partnership or a corporation is the applicant for registration or renewal of a registration, an application for registration or renewal of a registration shall set out the names and residence addresses of all its partners, directors or officers, as the case may be.

(6) An application for registration or renewal of a registration shall contain the names of all partners, directors, officers or employees of the applicant or *registered* person, as the case may be, and all other persons who have been engaged by the applicant or *registered* person, who

- (a) have the qualifications set out in Clauses 3.4.3.2.(1)(a) and (b), and
- (b) have the qualifications set out in Clauses 3.4.3.2.(1)(b) and (c) and will exercise powers and perform functions under the Act on behalf of the applicant or *registered* person.

(7) An application for registration or renewal of a registration shall contain evidence, provided by the applicant or *registered person*, that the persons referred to in Sentence (6) meet the qualifications set out in Clauses 3.4.3.2.(1)(a) to (c).

(8) An application for registration or renewal of a registration shall contain evidence, provided by the applicant or *registered person*, that the applicant or *registered person* is covered by the insurance required under Subsection 3.6.2. during the term of the registration applied for.

#### **3.4.3.4. Term**

- (1) A registration expires one year after the date of its issuance.

#### **3.4.3.5. Fees**

- (1) The fee for registration is \$300.
- (2) The fee for the addition of a new class of registration is \$50.
- (3) The fee for renewal of a registration is \$220.
- (4) The amount of a fee referred to in Sentence (1), (2) or (3) is reduced by 15 per cent and rounded to the nearest whole dollar if the application is made and the fee is paid in accordance with a means of electronic filing and payment specified by the *director*.
- (5) The Ministry of Municipal Affairs and Housing may charge a fee to a person who takes an examination for the purposes of this Section.

### 3.4.3.6. Not Transferable

- (1) A registration is not transferable.

### 3.4.3.7. Conditions

- (1) The following are the conditions of a registration
  - (a) the *registered* person shall carry out activities under the registration in accordance with the Act, this Code and the quality management plan referred to in Clause 3.4.3.2.(1)(d),
  - (b) if the *registered* person is a corporation or partnership, during the term of the registration there must be
    - (i) an officer, director, partner or employee of the *registered* person who has the qualifications set out in Clause 3.4.3.2.(1)(a), and
    - (ii) one or more officers, directors, partners or employees of the *registered* person who have the qualifications set out in Clause 3.4.3.2.(1)(b) in respect of each class of registration that is held by the *registered* person,
  - (c) not more than 180 days after the day a notice is given under Sentence 3.4.3.8.(1) by the *director* to the *registered* person, the *registered* person shall:
    - (i) ensure that the persons referred to in Clause (1)(b) have successfully completed the new examinations referred to in the notice, and
    - (ii) provide to the *director* the names of the persons and information about the examinations that the persons have successfully completed, in such detail as may be required by the *director*,
    - (d) the *registered* person shall during the term of the registration, be covered by the insurance required by Subsection 3.6.2.,
  - (e) the *registered* person shall, within 15 days after the event, notify the *director* in writing
    - (i) of any change in address of the *registered* person for correspondence relating to the registration, and
    - (ii) of any change in the information set out in Sentences 3.4.3.3.(5) and (6),
  - (f) the *registered* person shall give prompt written notice to the *director* of any material change in any of the information, other than the information referred to in Clause (e) that is contained in or accompanies an application for registration or renewal of a registration,

- (g) the *registered* person shall, from time to time, at the *registered* person's expense, give to the *director* such documents or information relating to the registration of the *registered* person or to activities carried out under the registration as the *director* may reasonably require,
- (h) the *registered* person shall allow the representatives of the *director* access to the *registered* person's books and records during normal business hours for the purpose of confirming matters related to the registration.

### 3.4.3.8. Updating of Qualifications

- (1) Where an examination in an examination program referred to in Clause 3.4.3.2.(1)(a), (b) or (c) is replaced with a new examination, the *director* shall give notice of the new examination to every *registered* person who is registered in a class of registration set out in Column 1 of Table 3.5.2.2, to which the examination relates.
- (2) The *director* may give the notice referred to in Sentence (1) by sending it by regular letter mail to the last address of the *registered* person that has been provided to the *director*.

### 3.4.3.9. Suspension, Revocation, Refusal to Register or Renew a Registration

- (1) The *director* may, in the circumstances set out in Sentence (2)
  - (a) refuse to register an applicant,
  - (b) refuse to renew a registration, or
  - (c) suspend or revoke a registration.
- (2) The circumstances referred to in Sentence (1) are
  - (a) the *registered* person is in contravention of the Act or this Code,
  - (b) the *registered* person is in breach of a condition of the registration other than the condition set out in Clause 3.4.3.7.(1)(d),
  - (c) the registration was issued on the basis of mistaken, false or incorrect information,
  - (d) the *director* is of the opinion that the past conduct of the applicant or *registered* person or, if the applicant or *registered* person is a partnership or a corporation, the partners, officers or directors of the *registered* person, as the case may be, affords reasonable grounds for belief that the business that would be or is authorized by the registration will not be carried on in accordance with law,



- (e) the *director* is of the opinion that there are reasonable grounds for belief that the activities of the applicant or *registered* person are or will be carried on in a manner that poses a threat to public safety,
  - (f) the application is incomplete, or
  - (g) any fees required under Article 3.4.3.5. remain unpaid.
- (3) If the *director* proposes to refuse to register or renew a registration or proposes to suspend or revoke a registration under Sentence (1), the *director* shall serve a notice of the proposal, together with the reasons for it, on the applicant or *registered* person.
- (4) A notice under Sentence (3) shall state that the applicant or *registered* person is entitled to a hearing before the *Tribunal* if the applicant or *registered* person, within 15 days after service of the notice referred to in Sentence (3), serves the *director* and the *Tribunal* with notice in writing requesting a hearing.
- (5) If an applicant or *registered* person does not request a hearing by the *Tribunal* in accordance with Sentence (4), the *director* may carry out the proposal stated in the notice under Sentence (3).
- (6) If an applicant or *registered* person requests a hearing before the *Tribunal* in accordance with Sentence (4), the *Tribunal* shall appoint a time for and hold a hearing and may by order direct the *director* to carry out the *director's* proposal or refrain from carrying it out and to take such other action as the *Tribunal* considers the *director* ought to take in accordance with the Act and this Code, and for those purposes the *Tribunal* may substitute its opinion for that of the *director*.
- (7) The *director*, the applicant or *registered* person who requested the hearing, and such other persons as the *Tribunal* may specify, are parties to proceedings before the *Tribunal*.
- (8) A proposal to suspend or revoke a registration by reason of Clause (2)(e) takes effect immediately and the commencement of a proceeding before the *Tribunal* does not stay the operation of the proposal to suspend or revoke the registration.
- (9) The *Tribunal* may, on the application of the *registered* person, stay the operation of the proposal of the *director* to suspend or revoke the registration, and may grant the stay subject to conditions.

(10) Sentences (3) to (9) do not apply and the *director* may cancel the registration of a *registered* person upon receipt of a request in writing for cancellation from the *registered* person in a form established by the *director*.

(11) Subject to Sentence (8), if within the time period set out in Sentence 3.4.3.3.(2) a *registered* person has applied for renewal of a registration, paid the fee required under Article 3.4.3.5. and provided evidence satisfactory to the *director* that the *registered* person is covered by insurance required under Subsection 3.6.2. for the term of the renewal of the registration, the registration shall be deemed to continue until the earliest of

- (a) the day the registration is renewed,
- (b) if the *registered* person is served with notice that the *director* proposes to refuse to renew the registration, the day the time for giving notice requesting a hearing expires or, if a hearing is held, the day the *Tribunal* makes its order, and
- (c) the day when the *registered* person ceases to be covered by the insurance required under Subsection 3.6.2.

#### **3.4.3.10. Mandatory Suspension or Revocation of Registration or Refusal to Register or Renew a Registration**

- (1) The *director* shall, in the circumstances set out in Sentence (2)
  - (a) refuse to register an applicant,
  - (b) refuse to renew a registration, or
  - (c) suspend or revoke a registration.
- (2) The circumstances referred to in Sentence (1) are
  - (a) the *registered* person is not covered by the insurance required under Subsection 3.6.2., or
  - (b) an order under subsection 69(2) of the *Provincial Offences Act* is in effect directing that the registration of the person be suspended and that no registration be issued to that person until a fine is paid.
- (3) If the *director* refuses to register an applicant, refuses to renew a registration or suspends or revokes a registration under Sentence (1), the *director* shall serve a notice of the refusal, suspension or revocation, together with the reasons for it, on the *registered* person.



(4) A suspension or revocation of a registration under Sentence (1) takes effect immediately and the commencement of a proceeding before the *Tribunal* does not stay the operation of the suspension or revocation of the registration.

(5) The *Tribunal* may, on the application of the *registered* person, stay the operation of a decision of the *director* to suspend or revoke the registration, and may make the stay subject to conditions.

(6) A notice under Sentence (3) shall state that the *registered* person is entitled to a hearing before the *Tribunal* if the *registered* person, within 15 days after service of the notice referred to in Sentence (3), serves the *director* and the *Tribunal* with notice in writing requesting a hearing.

(7) If a *registered* person requests a hearing before the *Tribunal* in accordance with Sentence (6), the *Tribunal* shall appoint a time for and hold a hearing and may by order confirm, alter or revoke the decision of the *director* to refuse to register or to suspend or revoke the registration and may take such action as the *Tribunal* considers the *director* ought to take in accordance with the Act and this Code, and for such purposes the *Tribunal* may substitute its opinion for that of the *director*.

(8) The *director* and the *registered* person who requested the hearing, and such other persons as the *Tribunal* may specify, are parties to proceedings before the *Tribunal*.

### **3.4.4. Public Register**

#### **3.4.4.1. Public Register**

(1) The *director* shall establish and maintain a register available to the public listing every person who has the qualifications required by subsection 15.11(4) of the Act.

(2) The register referred to in Sentence (1) shall contain the following information in respect of every *registered* person

- (a) the name of the *registered* person,
- (b) any identifying number assigned by the *director* to the *registered* person,
- (c) the business address of the *registered* person,
- (d) the classes of registration of the *registered* person, and

- (e) the names of any persons who will exercise powers and perform functions under the Act on behalf of the *registered* person in each class of registration and any identifying number assigned by the *director* to that person.

### **3.4.5. Classes of Registration and Categories of Qualifications**

#### **3.4.5.1. Classes and Categories**

- (1) Table 3.5.2.2. contains the classes of registration and categories of qualifications for the purposes of this Section.

### **Section 3.5. Classes of Registration and Categories of Qualifications**

#### **3.5.1. Scope**

##### **3.5.1.1. Scope**

- (1) This Section sets out classes of registration and categories of qualifications for the purposes of Sections 3.1, 3.2., 3.4. and 3.7.

### **3.5.2. Classes of Registration and Categories of Qualifications**

#### **3.5.2.1. Inspectors and Persons Who Carry out Design Activities**

- (1) Table 3.5.2.1. sets out the classes of registration and categories of qualifications for persons who carry out *design activities* and the categories of qualifications for *inspectors*.



**Table 3.5.2.1.**  
**Classes of Registration and Categories of Qualifications For Inspectors and**  
**Persons Who Carry Out Design Activities**  
**Forming Part of Sentence 3.5.2.1.(1)**

Row Number	Classes of Registration for Persons Engaged in the Business of Providing Design Activities to the Public	Categories of Qualifications for Inspectors and Persons Described in Clauses 3.2.4.2 (1)(a) and (b) and 3.2.5.1 (1)(a)	Type of Building
1	House	House	<p>(a) A detached house, semi-detached house, townhouse or row house containing not more than two dwelling units in each house and the building systems, works, fixtures and service systems appurtenant to these buildings,</p> <p>including</p> <p>(b) an ancillary building that serves the building, and</p> <p>excluding</p> <p>(c) buildings and parts of buildings described in Column 4 of any of Rows 5, 6, 7, 8, 10 and 11 of this Table.</p>
2	Small Buildings	Small Buildings	<p>(a) Buildings described in Sentence 1.1.2.4 (1) of Division A and the building systems, works, fixtures and service systems appurtenant to these buildings,</p> <p>including</p> <p>(b) buildings and parts of buildings</p> <p>(i) described in Column 4 of Row 1 of this Table, or</p> <p>(ii) to which any of Sections 3.10, 3.11, 3.12, 3.14, and 3.15 of Division B apply and that are appurtenant to or serve buildings described in Clause (a),</p> <p>excluding</p> <p>(c) buildings and parts of buildings described in Column 4 of any of Rows 4 to 10 of this Table.</p>
3	Large Buildings	Large Buildings	<p>(a) Buildings described in Sentence 1.1.2.2 (1), (3) or (4) of Division A and the building systems, works, fixtures and service systems appurtenant to these buildings,</p> <p>excluding</p> <p>(b) buildings and parts of buildings described in Column 4 of any of Rows 4 to 11 of this Table.</p>
4	Complex Buildings	Complex Buildings	Building systems, works, fixtures and service systems to which Subsection 3.2.6 of Division B or any provision in Articles 3.2.8.3 to 3.2.8.11 of Division B apply
Column 1	2	3	4

**Table 3.5.2.1. (Cont'd)**  
**Classes of Registration and Categories of Qualifications For Inspectors and**  
**Persons Who Carry Out Design Activities**  
**Forming Part of Sentence 3.5.2.1.(1)**

Row Number	Classes of Registration for Persons Engaged in the Business of Providing Design Activities to the Public	Categories of Qualifications for Inspectors and Persons Described in Clauses 3.2.4.2(1)(a) and (b) and 3.2.5.1(1)(a)	Type of Building
5	Plumbing - House	Plumbing - House	All plumbing systems to which Part 7 of Division B applies that are appurtenant to a building that is a detached house, semi-detached house, townhouse or row house containing not more than two dwelling units in each house.
6	Plumbing - All Buildings	Plumbing - All Buildings	(a) All plumbing systems to which Part 7 of Division B applies, including (b) buildings and parts of buildings described in Column 4 of Row 5 of this Table.
7	HVAC - House	HVAC - House	All building systems, works, fixtures and service systems to which Section 9.32 or 9.33 of Division B applies that are appurtenant to a building that is a detached house, semi-detached house, townhouse or row house containing not more than two dwelling units in each house.
8	Building Services	Building Services	(a) Building systems, works, fixtures and service systems that are appurtenant to buildings described in Sentence 1.1.2.2(1), (3) or (4) or Sentence 1.1.2.4(1) of Division A and that relate to fire suppression, fire detection, smoke control, exhaust, vertical movement of smoke, energy efficiency, lighting and emergency power, and (b) building systems, works, fixtures and service systems appurtenant to buildings to which Part 6 of Division B applies or to which Section 9.32 or 9.33 of Division B applies, including (c) buildings and parts of buildings described in Column 4 of Row 7 or 11 of this Table.
9	Building Structural	Building Structural	Internal and external loadbearing structural elements essential to the stability or strength of a building described in Sentence 1.1.2.2(2) or Sentence 1.1.2.4(1) of Division A and that resist dead loads or live loads including, but not limited to, foundations, floors, walls, roofs, columns and beams.
Column 1	2	3	4

**Table 3.5.2.1. (Cont'd)**  
**Classes of Registration and Categories of Qualifications For Inspectors and**  
**Persons Who Carry Out Design Activities**  
 Forming Part of Sentence 3.5.2.1.(1)

Row Number	Classes of Registration for Persons Engaged in the Business of Providing Design Activities to the Public	Categories of Qualifications for Inspectors and Persons Described in Clauses 3.2.4.2 (1)(a) and (b) and 3.2.5.1 (1)(a)	Type of Building
10	On-site Sewage Systems	On-site Sewage Systems	Sewage systems to which Part 8 of Division B applies
11	Detection, Lighting and Power	Detection, Lighting and Power	Early warning and electrical systems including systems appurtenant to buildings described in Sentence 1.1.2.2 (1) or Sentence 1.1.2.4 (1) of Division A and that relate to fire alarm and detection systems, voice communication systems, lighting systems, emergency lighting systems or emergency power systems for building services in all buildings
12	Fire Protection	Fire Protection	Fire suppression, fire detection, fire lighting and fire safety systems appurtenant to buildings described in Sentence 1.1.2.2 (1) or Sentence 1.1.2.4 (1) of Division A
Column 1	2	3	4

**Notes to Table 3.5.2.1.:**

- (1) An *inspector* qualified in one category of qualification may carry out plans review and inspection in another category where to do so does not constitute a substantial part of the plans review or inspection on any project.
- (2) A person registered in one class of registration or a person qualified in one category of qualification may carry out *design activities* in another class or category where to do so does not constitute a substantial part of the *design activities* on any project.

**3.5.2.2. Registered Code Agencies**

- (1) Table 3.5.2.2. sets out the classes of registration for *registered code agencies* and the categories of qualifications for persons described in Clauses 3.4.3.2.(1)(a) to (c).

**Table 3.5.2.2.**  
**Classes of Registration and Categories of Qualifications**  
**Registered Code Agencies**  
 Forming Part of Sentence 3.5.2.2.(1)

Classes of Registration for Registered Code Agencies	Category of Qualification for Persons Described in Clauses 3.4.3.2 (1)(a) to (c)	Type of Building Reference to Table 3.5.2.1
House	House	Column 4 of Row 1
	Plumbing - House	Column 4 of Row 5
	HVAC - House	Column 4 of Row 7
	On-Site Sewage Systems	Column 4 of Row 10
Small Buildings	Small Buildings	Column 4 of Row 2
	Plumbing - All Buildings	Column 4 of Row 6
	Building Services	Column 4 of Row 8
	Building Structural	Column 4 of Row 9
	On Site Sewage Systems	Column 4 of Row 10
Large Buildings	Large Buildings	Column 4 of Row 3
	Plumbing - All Buildings	Column 4 of Row 6
	Building Services	Column 4 of Row 8
	Building Structural	Column 4 of Row 9
	On-site Sewage Systems	Column 4 of Row 10
Complex Buildings	Complex Buildings	Column 4 of Row 4
	Plumbing - All Buildings	Column 4 of Row 6
	Building Services	Column 4 of Row 8
	Building Structural	Column 4 of Row 9
	On-site Sewage Systems	Column 4 of Row 10
On-site Sewage Systems	On-site Sewage Systems	Column 4 of Row 10
Column 1	2	3



## Section 3.6. Insurance

### 3.6.1. Scope

#### 3.6.1.1. Scope

(1) This Section prescribes, for the purposes of subsection 15.13(1) of the Act, the insurance coverage that *registered code agencies* and persons referred to in subsection 15.11(5) of the Act must have.

### 3.6.2. Insurance for Registered Code Agencies and Persons Referred to in Subsection 15.11(5) of the Act

#### 3.6.2.1. Definition

(1) In this Subsection, *registered person* means a person who is registered under Article 3.2.4.2, or 3.4.3.2.

#### 3.6.2.2. Scope

(1) Every person registered under Article 3.2.4.2, or 3.4.3.2, shall have insurance coverage under an insurance policy that satisfies the requirements set out in Article 3.6.2.3.

#### 3.6.2.3. Insurance Coverage

- (1) The insurance policy
- (a) shall indemnify the *registered person* against liability imposed by law arising out of the performance of or the failure to perform services as a *registered person* during any time while the person is registered under Article 3.2.4.1, or 3.4.3.2, for claims that are first made and reported to the insurer during the period of insurance or during any extended reporting period required by Clause (1)(c),
- (b) shall set out the name of the *registered person*,
- (c) in the case of a *registered code agency* registered under Article 3.4.3.2.,
  - (i) shall require an extended reporting period of two years for the purposes of giving notice of any claim or occurrence that the *registered code agency* could reasonably foresee might give rise to a claim, with respect to an event that occurs prior to the person ceasing to be insured,

- (ii) shall provide that the extended reporting period described in Subclause (i) shall commence on the day the *registered code agency* ceases to be insured, and
- (iii) shall require the *registered code agency* to make full payment of all premiums for the extended reporting period referred to in Subclause (i) as part of the premiums for the issuance of the insurance policy.
- (d) shall provide for insurance coverage to commence,
  - (i) on the date the *registered person* becomes registered, or
  - (ii) in the case of a *registered person* previously insured in accordance with this Article, on the expiry of the previous policy.
- (e) shall require the insurer to provide prompt written notice to the *director* if the policy is declared void for material misrepresentation.
- (f) shall specify a limit of indemnity for any one claim and in the aggregate during any one period of insurance that is not less than
  - (i) in the case of persons registered under Article 3.2.4.2.,
    - (A) \$1,000,000 per claim and \$2,000,000 in the aggregate, if the person billed \$100,000 or more in fees in the 12 months immediately before the issuance of the policy,
    - (B) \$500,000 per claim and \$1,000,000 in the aggregate, if the person billed more than \$50,000 and less than \$100,000 in fees in the 12 months immediately before the issuance of the policy,
    - (C) \$250,000 per claim and \$500,000 in the aggregate, if the person billed \$50,000 or less in fees in the 12 months immediately before the issuance of the policy, or
    - (D) the limits of indemnity for any one claim and in the aggregate that are set out in Sub-subclause (A), (B) or (C), as determined by reference to the person's estimated fees billings for the 12-month period immediately after the issuance of the policy, if the person has been registered less than one year before the issuance of the policy, and
  - (ii) in the case of a *registered code agency* registered under Article 3.4.3.2., \$1,000,000 per claim and \$2,000,000 in the aggregate, except that those limits shall apply exclusively to the exercise of the powers and performance of the duties of a *registered code agency* under the Act and shall be in addition to any insurance applicable to any other activities carried on by the *registered code agency*.





- (g) shall provide that any costs and expenses necessarily incurred by the insurer in the investigation, defence or settlement of claims under the policy shall not be part of the limit of indemnity set out in Clause (f) unless the limit of indemnity from any one claim exceeds \$2,000,000,
- (h) shall not provide that the insured shall be responsible for the first portion of any sum that the insured becomes legally liable to pay in respect of a claim made against him, her or it in respect of any one claim or occurrence in an amount exceeding the lesser of:
  - (i) \$70,000, and
  - (ii) 5% of
    - (A) the amount of fees billed by the insured in the 12 months immediately before the issuance of the policy, or
    - (B) the amount of the insured's estimated fees billings for the 12-month period immediately after the issuance of the policy, if the insured has been registered under Article 3.2.4.2. less than one year before the issuance of the policy,
- (i) shall provide that it cannot be cancelled by the insured unless,
  - (i) the insured immediately replaces the policy with another policy that satisfies the requirements of this Article,
  - (ii) the insurer has given notice in writing of the proposed cancellation to the *director*, and
  - (iii) the notice described in Subclause (ii) was received by the *director* at least 30 days before the day the policy is cancelled,
- (j) shall provide that it cannot be cancelled by the insurer unless,
  - (i) it is cancelled for non-payment of a premium,
  - (ii) the insurer has given notice in writing of the proposed cancellation to the *director*, and
  - (iii) the notice described in Subclause (ii) was sent to the *director* at least 30 days before the day the policy is cancelled,
- (k) shall provide for the continuation of coverage if the insured is adjudged a bankrupt, insolvent, incompetent or dies during the period of insurance, and
- (l) may provide that coverage be subject to such exclusions and conditions and otherwise on such terms as are consistent with normal insurance industry practice from time to time.

## Section 3.7. Registered Code Agencies

### 3.7.1. Appointment of Registered Code Agency under Section 4.1 of the Act

#### 3.7.1.1. Agreements

- (1) An agreement between a *principal authority* and a *registered code agency* under subsection 4.1(1) of the Act shall be made in writing and shall
  - (a) specify the functions that the *registered code agency* is authorized to perform,
  - (b) specify the *construction* of the *building* or class of *buildings* in respect of which the functions will be performed,
  - (c) set out the procedure by which the *principal authority* will appoint the *registered code agency* to perform specified functions in respect of the *construction* of a *building* or class of *buildings*,
  - (d) require that the *registered code agency* carry out its functions under the agreement in accordance with the Act and this Code and the quality management plan described in Clause 3.4.3.2.(1)(d),
  - (e) provide for the provision by the *principal authority* to the *registered code agency* of such plans, specifications and other information, including applications for permits, that the *registered code agency* may require in order to act under the appointment.
- (2) An agreement under Subsection (1),
  - (a) may contain provisions in addition to the provisions required under Subsection (1) if the additional provisions are not inconsistent with the provisions required under that Subsection, and
  - (b) shall not contain any provision that relates to the *construction* of *buildings* for a class of registration for which the *registered code agency* is not registered under Section 3.4.

#### 3.7.1.2. Appointments

- (1) An appointment under subsection 4.1 (2) of the Act by a *principal authority* of a *registered code agency* to perform specified functions in respect of the *construction* of a *building* or class of *buildings* shall be made in writing and shall
  - (a) specify the *construction* of the *building* or class of *buildings* in respect of which the appointment relates,
  - (b) specify the functions described in section 15.15 of the Act that the *registered code agency* is appointed to perform, and

(c) require that the *registered code agency* carry out its functions under the appointment in 3.4.3.2.(1)(d).

(2) An appointment described in Subsection (1) may contain provisions in addition to the provisions required under Subsection (1) if the additional provisions are not inconsistent with the provisions required under that Subsection.

### **3.7.2. When a Registered Code Agency may not be Appointed or Continue to Act under an Appointment**

#### **3.7.2.1. General**

(1) A *registered code agency* may not be appointed to perform functions under section 15.15 of the Act in respect of a *building* or continue to act under an appointment in respect of a *building* if the *registered code agency*

- (a) is not registered under Section 3.4. in respect of the class of registration to which the *construction* of the *building* relates, or
- (b) is in breach of a condition of its registration under Article 3.4.3.7.

(2) Where under Section 1.2. the design and general review of *construction* of a *building* must be undertaken by an *architect* or *professional engineer* or both, a *registered code agency* may not be appointed to perform functions under section 15.15 of the Act or continue to act under an appointment in respect of the *construction* of the *building* unless the *registered code agency* or an officer, director, partner or employee of the *registered code agency* is an *architect* or *professional engineer* or both, as the case may be.

(3) A *registered code agency* shall not be appointed under the Act or continue to act under an appointment if the *registered code agency* would be in a conflict of interest.

(4) For the purposes of Sentence (3), a *registered code agency* would be in a conflict of interest if the *registered code agency* or an officer, director, partner or employee of the *registered code agency* or any person engaged by the *registered code agency* to perform functions for it

- (a) has participated or participates, in any capacity, in *design activities* or *construction* relating to any part of the *building* to which an appointment relates,

- (b) is or has been employed within the previous 180 days by a person who carried out *design activities* or *construction* relating to any part of the *building*,
- (c) has a professional or financial interest in:
  - (i) the *construction* of the *building* to which the appointment relates,
  - (ii) the *building* to which the appointment relates, or
  - (iii) the person responsible for the design of the *building* to which the appointment relates,
- (d) is an elected official, officer or employee of a *principal authority*.

(5) For the purposes of Clause (4)(c), involvement with a *building* as a *registered code agency* and entitlement to any fee paid for acting as a *registered code agency* in respect of a *building* shall not be considered to be a professional or financial interest in the *construction* of the *building*, the *building* or the person responsible for the design of the *building*.

### **3.7.3. Additional Functions that Registered Code Agencies may be Appointed To Perform**

#### **3.7.3.1. General**

(1) In addition to the functions described in paragraphs 1 to 5 of section 15.15 of the Act, a *registered code agency* may be appointed to perform the functions set out in Sentence 3.7.4.3.(5).

### **3.7.4. Manner in which Registered Code Agency shall Perform Functions**

#### **3.7.4.1. General**

(1) The *registered code agency* shall perform the functions specified in an appointment in accordance with the Act and this Code and the quality management plan referred to in Clause 3.4.3.2.(1)(d).

(2) The *registered code agency* shall perform the functions specified in an appointment in accordance with the code of conduct set out in Supplementary Standard SC-1.

### **3.7.4.2. Plans Review and Inspection Activities**

- (1) The *registered code agency* shall ensure that plans review and inspection activities of the *registered code agency* are carried out by a person who has the qualifications set out in Clause 3.4.3.2.(1)(b) or (c) in respect of the type of *building* set out in Column 3 of Table 3.5.2.2. for which the person is carrying out the activities.
- (2) Not more than 180 days after the day a notice is given under Sentence 3.4.3.8.(1) by the *director* to the *registered code agency*, the *registered code agency* shall
  - (a) ensure that plans review and inspection activities of the *registered code agency* in the category of qualification to which the notice relates are carried out by persons who have successfully completed all new examinations referred to in the notice, and
  - (b) provide the following information to the *director*:
    - (i) the name and residence address of the person, and
    - (ii) information required by the *director* about the examinations that the person or persons have successfully completed.
- (3) A *registered code agency* shall prepare written records of every inspection of the *construction* of a *building* that is undertaken by the *registered code agency* in the course of performing functions under an appointment
- (4) The record required under Sentence (3) shall include
  - (a) the date of receipt of the notice of readiness for inspection, if any,
  - (b) the date of the inspection,
  - (c) the reason for the inspection,
  - (d) whether non-compliance with this Code was observed in the course of the inspection and the details of the non-compliance.
- (5) If a *registered code agency* has issued an order under subsection 12(2), 13(1) or 13(6) of the Act, the *registered code agency* shall prepare a written record consisting of
  - (a) a copy of the order,
  - (b) the persons on whom the order was served and the date and manner of service,
  - (c) when and how the order was complied with, and
  - (d) if the order has not been complied with, the efforts made by the *registered code agency* to achieve compliance by the persons responsible for compliance.

### 3.7.4.3. Issuance of Certificates by Registered Code Agencies

(1) Subject to Sentence (2), every certificate issued under the Act by a *registered code agency* shall, in accordance with the quality management plan referred to in Clause 3.4.3.2.(1)(d), be signed by the *registered code agency* or, if the *registered code agency* is a corporation or partnership, by a person described in Clause 3.4.3.2.(1)(a).

(2) If the certificate is issued in respect of the *construction* of a *building* that would under Section 1.2.1. be required to be designed by and under the general review of an *architect* or *professional engineer* or both, the certificate shall also be signed on behalf of the *registered code agency* by an *architect* or a *professional engineer* or both, as the case may be, who is an officer, director, partner or employee of the *registered code agency*.

(3) A *registered code agency* may issue a *plans review certificate* if the *registered code agency*

- (a) has been appointed to perform the functions described in clause 4.1(4)(a) or (c) of the Act in respect of the proposed *construction* of the *building* to which the *plans review certificate* applies,
- (b) has, in conformity with the Act, this Code and the quality management plan described in Clause 3.4.3.2.(1)(d), carried out the applicable functions for which the *registered code agency* was appointed, and
- (c) is satisfied on reasonable grounds that, on date on which the *plans review certificate* is issued, the proposed *construction* of the *building* to which the *plans review certificate* relates is in compliance with this Code.

(4) A *registered code agency* may issue a *change certificate* if the *registered code agency*

- (a) has been appointed to perform the functions described in clauses 4.1(4)(a) to (c) of the Act in respect of the *construction* or proposed *construction* of the *building* to which the *change certificate* applies,
- (b) has, in conformity with the Act, this Code and the quality management plan described in Clause 3.4.3.2.(1)(d), carried out the applicable functions for which the *registered code agency* was appointed, and
- (c) is satisfied on reasonable grounds that, on the date on which the *change certificate* is issued, the proposed *construction* of the *building* to which the *change certificate* relates is in compliance with this Code.

- (5) A *registered code agency* may issue a *certificate for the occupancy of a building not fully completed* if the *registered code agency*
- (a) has been appointed to perform the functions described in clause 4.1(4)(b) or (c) of the Act in respect of the *construction of the building to which the certificate for the occupancy of a building not fully completed* applies,
  - (b) has, in conformity with the Act, this Code and the quality management plan described in Clause 3.4.3.2.(1)(d), carried out the applicable functions for which the *registered code agency* was appointed, and
  - (c) is satisfied on reasonable grounds that, on the date on which the *certificate for the occupancy of a building not fully completed* is issued, the *construction of the building to which the certificate for the occupancy of a building not fully completed* relates is in compliance with Clauses 1.3.3.1.(2)(a) to (q).
- (6) A *registered code agency* may issue a *final certificate* if the *registered code agency*
- (a) has been appointed to perform the functions described in clause 4.1(4)(b) or (c) of the Act in respect of the *construction of the building to which the final certificate* applies,
  - (b) has, in conformity with the Act, this Code and the quality management plan described in Clause 3.4.3.2.(1)(d), carried out the applicable functions for which the *registered code agency* was appointed, and
  - (c) is satisfied on reasonable grounds that on the date on which the *final certificate* is issued, the *construction of the building to which the final certificate* relates is in compliance with this Code.
- (7) Every certificate issued under the Act by a *registered code agency* shall be in a form approved by the *Minister*.

#### **3.7.4.4. Issuance of Orders by Registered Code Agencies**

- (1) Orders under subsections 13(6) and 14(1) of the Act shall, in accordance with the quality management plan described in Clause 3.4.3.2.(1)(d), be signed by the *registered code agency* or a person described in Clause 3.4.3.2.(1)(a).
- (2) Orders under subsections 12(2) and 13(1) and clause 18(1)(f) of the Act shall, in accordance with the quality management plan described in Clause 3.4.3.2.(1)(d), be signed by the *registered code agency* or by a person described in Clause 3.4.3.2.(1)(b) or (c).

### 3.7.4.5. Authorized Persons

(1) Persons who possess the qualifications described in Clauses 3.4.3.2.(1)(a), (b) and (c) are prescribed for the purposes of subsection 15.17(1) of the Act.

(2) The certificate of authorization referred to in subsection 15.17(2) of the Act shall, in accordance with the quality management plan described in Clause 3.4.3.2.(1)(d), be signed by a representative of the *registered code agency* who is described in Clause 3.4.3.2.(1)(a) and shall contain the following information

- (a) the name of the *registered code agency* and any identifying number issued by the *director* to the *registered code agency*,
- (b) the title, business address and business telephone number of a representative of the *registered code agency* who may be contacted to answer questions about the certificate and the authorization to which it relates,
- (c) the name of the authorized person and any identifying number issued by the *director* to the authorized person in respect of that person's qualifications,
- (d) the scope of the powers that may be exercised and the functions that may be performed by the authorized person,
- (e) the date of issuance of the certificate.

(3) Every person described in Sentence (1) shall carry his or her certificate of authorization when performing duties and shall produce the certificate for inspection upon request.

### 3.7.4.6. Prohibition

(1) A *registered code agency* shall not dismiss, suspend, demote, discipline, harass or otherwise disadvantage an employee, or deny an employee a benefit of employment, by reason that

- (a) the employee, acting in good faith and on the basis of reasonable belief, has disclosed to the *director* that the *registered code agency* or any other person has contravened or intends to contravene a provision of the Act or this Code,
- (b) the employee, acting in good faith and on the basis of reasonable belief, has refused or stated an intention of refusing to do anything that is a contravention of a provision of the Act or this Code.





- (c) the employee, acting in good faith and on the basis of reasonable belief, has done or stated an intention of doing anything that is required to be done in order that a provision of the Act or this Code not be contravened, or
  - (d) the *registered code agency* believes that the employee will do anything referred to in Clause (a), (b) or (c).
- (2) Nothing in this Section impairs any right of an employee either at law or under an employment contract or collective agreement.
- (3) In this Article

"employee" includes an independent contractor and "employer" includes the person who retains an employee who is an independent contractor.

### 3.7.4.7. Information and Records

- (1) The *registered code agency* shall maintain records of all plans review and inspection activity, of all certificates and orders and of any other activities taken in carrying out functions under an appointment in accordance with the quality management plan described in Clause 3.4.3.2.(1)(d).
- (2) Any information collected by a *registered code agency* in the course of the exercise of powers and the performance of duties under this Act may be used only for the purpose of performing functions under an appointment under subsection 4.1(2) of the Act and may be disclosed only
- (a) to a *principal authority* pursuant to an agreement under subsection 4.1(1) of the Act,
  - (b) to a *principal authority* to aid the enforcement in any manner of the Act,
  - (c) where required or permitted under this Act, this Code, other applicable legislation or an order of a court.
- (3) A *registered code agency* shall ensure that any agreement under which the *registered code agency* engages a person to assist the *registered code agency* to perform functions under an appointment includes a provision that requires the person to comply with Sentences (1) and (2).

### **3.7.5. Termination of Appointment of a Registered Code Agency**

#### **3.7.5.1. Termination of an Appointment Made under Subsection 4.1(2) of the Act**

(1) A *principal authority* may, in accordance with the terms of an agreement under subsection 4.1(1) of the Act, terminate the appointment of a *registered code agency* before the appointment expires under section 15.19 of the Act.

### **3.7.6. Information to be Provided**

#### **3.7.6.1. Information to be Provided by a Principal Authority to the Director**

(1) If a *principal authority* that has appointed a *registered code agency* terminates the appointment before the appointment expires under section 15.19 of the Act, the *principal authority* shall, as soon as possible after the termination, give the *director* notice of the termination and such other information concerning the circumstances of the termination and as may be required by the *director*.

(2) If a *principal authority* has issued an order under subsection 15.21(1) of the Act, the *principal authority* shall as soon as possible after the order is issued give the *director* a copy of the order and such other information concerning the circumstances of the order and as may be required by the *director*.

#### **3.7.6.2. Information to be Provided by a Registered Code Agency to the Director**

(1) A *registered code agency* that becomes or expects to become unable to carry out the functions for which the *registered code agency* was appointed shall as soon as possible give notice to the *director* of this situation.

### **3.7.6.3. Information to be Provided by a Registered Code Agency to the Chief Building Official**

(1) A *registered code agency* shall notify the *chief building official* if the *registered code agency* becomes or expects to become unable to carry out the functions for which the *registered code agency* was appointed.

(2) A *registered code agency* shall give copies of the following records to the *chief building official*

- (a) all orders issued by the *registered code agency* under subsections 12(2), 13(1) and 13(6) of the Act,
- r<sub>1</sub> (b) all written records prepared by the *registered code agency* under Sentences 3.7.4.2.(3) and (4),
- (c) all *final certificates* that are issued by the *registered code agency*,
- (d) records described in Section 2.1. relating to the use of an alternative solution, and
- (e) any records of information, copies of documents or things, tests, samples or photographs produced, removed, required, taken or ordered to be taken under subsection 18(1) of the Act.

(3) The documents referred to in Sentence (2) shall be given to the *chief building official*

- (a) within the time period specified in any agreement under Article 3.7.1.1. or appointment under Article 3.7.1.2. in respect of which the documents relate, whichever time period ends earlier,
- (b) within 15 days after the expiry or termination of the appointment of the *registered code agency* in respect of which the documents relate, if there is no time period specified in the agreement or appointment referred to in Clause (a), or
- (c) if the *chief building official* has given notice to the *registered code agency* that he or she requires the documents before the time set out in Clause (a) or (b), within 2 days after the request for documents.

(4) The requirements of Sentence (2) apply even if the *registered code agency* is no longer registered under Subsection 3.4.

(5) If a *registered code agency* in the course of carrying out functions under an appointment has reason to believe that a *building* described in Sentence (7) is unsafe within the meaning of subsection 15.9(2) or (3) of the Act, the *registered code agency* shall as soon as possible give notice to the *chief building official* of

- (a) the location of the *building*, and
- (b) the reason why the *registered code agency* has reason to believe that the *building* is unsafe.

(6) A *registered code agency* that has given a notice to the *chief building official* under Sentence (5) shall give the *chief building official* such other information about the unsafe condition as the *chief building official* may require.

(7) Sentence (5) applies to

- (a) a *building* in respect of which the *registered code agency* has been appointed to perform functions, and
- (b) a *building* that has been adversely affected by *construction* of a *building* referred to in Clause (a).

(8) For the purposes of Sentence (3), a time period referred to in Clause (3)(a), (b) or (c)

- (a) does not start until the day after the day on which the obligation to provide the documents arises, and
- (b) does not include Saturdays, holidays and all other days on which the offices of the *principal authority* are not open for the transaction of business with the public.

### **3.7.7. Referral of Stop Work Order**

#### **3.7.7.1. Referral**

(1) A *registered code agency* shall refer a matter under subsection 14(5) of the Act to the *chief building official* by giving the *chief building official*, as soon as possible

- (a) a report that contains the following information:
  - (i) a copy of the order made under section 12 or 13 of the Act that was not complied with and of the order under subsection 14(2) of the Act,
  - (ii) the persons on whom the orders were served and the date and manner of service, and
  - (iii) a statement that the orders have not been complied with, and
- (b) such other information as the *chief building official* may require in respect of the matter that has been referred.

(2) The report under Clause (1)(a) shall be signed, in accordance with the quality management plan described in Clause 3.4.3.2.(1)(d), by the *registered code agency* or, if the *registered code agency* is a corporation or partnership, by a person described in Clause 3.4.3.2.(a).

## **Part 4**

### **Transition, Revocation and Commencement**

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## Part 4

### Transition, Revocation and Commencement

#### Section 4.1. Transition Rule

##### 4.1.1. Transition, December 2006

###### 4.1.1.1. Transition Rule

- (1) Subject to Sentences (2) and (3), Ontario Regulation 403/97 (Building Code), as it read on December 30, 2006, is deemed to continue in force with respect to construction,
- (a) for which a permit has been issued before December 31, 2006, or
  - (b) for which the working drawings, plans and specifications are substantially completed before December 31, 2006, and for which an application for a permit is made before March 31, 2007 under that Regulation, as it read on December 30, 2006.
- (2) Sentence (1) does not apply unless the *construction* is commenced within six months after the permit is issued.
- (3) Division C, except for Section 2.1. of that Division, applies to *construction* described in Sentence (1) and prevails over all provisions of Ontario Regulation 403/97 (Building Code), as it read on December 30, 2006.

##### r<sub>1</sub> 4.1.2. Transition, July 2007

###### 4.1.2.1. Transition Rule

- (1) Subject to Sentence (2), this Regulation as it read on June 30, 2007 is deemed to continue in force with respect to construction,
- (a) for which a permit has been issued before July 1, 2007, or
  - (b) for which the working drawings, plans and specifications are substantially completed before July 1, 2007 and for which an application for a permit is made before October 1, 2007 under this Code as it read on June 30, 2007.
- (2) Sentence (1) does not apply unless the construction is commenced within six months after the permit is issued.

## **Section 4.2. Revocation**

### **4.2.1. Revocation**

#### **4.2.1.1. Revocation**

- (1) Ontario Regulation 403/97 is revoked.

## **Section 4.3. Commencement**

### **4.3.1. Commencement**

#### **4.3.1.1. Effective Date**

- (1) This Regulation comes into force on December 31, 2006.



## Appendix A

Appendix A to this document is included for explanatory purposes only and does not form part of the requirements. The bold-face reference numbers that introduce each item apply to the requirements in the Code.

**A-8.1.3.1.(1) Sanitary Sewage.** Sanitary sewage of domestic origin is as described in (b) of the definition in Sentence 1.4.1.2.(1) of Division A.

**A-8.1.3.1.(3) Evaluation of Waste from Industrial Processes.** When evaluating whether industrial process waste can go to an on-site sewage system, the total contaminant levels in the whole waste stream must be looked at. Heavy metals, pesticides and solvents are not found in domestic sewage and those levels must be brought down if present. The BOD<sub>5</sub> and suspended solids should be consistent with the levels found in domestic sanitary sewage. Slaughterhouses and milking operations have wastes that are similar to domestic sewage in chemical composition, but are characterized by high organic, highly nitrogenous and biologically degradable suspended and dissolved solids and grease in high concentrations. These wastes are not suitable for discharge to an on-site sewage system.

- a) **A-8.2.1.2.(1) Site Evaluation Information.** The evaluation required in Sentence (1) usually includes at least the following and is required on permit application
- (a) date the evaluation was done,
  - (b) name, address, telephone number, and signature of the person who prepared the evaluation,
  - (c) a scaled plan of the site showing
    - (i) the legal description of the property, property lines and easements,
    - (ii) the location of items in Column 1 of Tables 8.2.1.6.A. and 8.2.1.6.B.,
    - (iii) the proposed location of the sewage system,
    - (iv) the location of any unsuitable, disturbed or compacted areas, and
    - (v) the access route for tank maintenance,
  - (d) depth to bedrock,
  - (e) evidence of high ground water,
  - (f) soil properties,
  - (g) soil conditions,
  - (h) utility corridors,

- (i) permeability, and
- (j) potential for flooding.

**A-8.2.1.2.(2) Alternative Tests.** Other tests to determine percolation time may be suitable depending on the soil type(s) encountered on a site. The results of tests other than those described in this Code may be used by relying on provisions governing the use of alternative solutions (such as Clause 1.2.1.1.(1)(b) of Division A and formerly Section 2.7. in the 1997 edition of the Building Code).

**A-8.2.1.2.(3) Test Procedure.** Where a field percolation test is required, it is performed in the following manner:

- (a) Make an excavation in the soil layer which is to be assessed for a percolation time. The excavation shall be:
  - (i) between 100 and 300 mm in diameter
  - (ii) be at least 200 mm in depth below the upper level of the soil layer being assessed.
- (b) All loose material and smeared clay shall be removed from the sides and bottom of the excavation.
- (c) Cover the bottom of the excavation with 50 mm of sand or fine gravel.
- (d) Fill the hole with water to a depth of 300 mm (or to the surface) and determine the time it takes for the water to seep away; repeat, and if the second filling seeps away in 10 minutes or less proceed as follows:
  - 1. Establish a fixed reference point, add water to a depth of 150 mm above the sand or fine gravel, and measure the water drop every 10 minutes for one hour. If for one hour the first 150 mm seeps away in 10 minutes or less, use a shorter time interval between readings.
  - 2. Refill to the 150 mm level when necessary and start another series of readings. Continue readings until the last two series of readings show a similar drop pattern (approximately equal drop in the same number of readings) or, alternatively, until the difference in the maximum and minimum drops in 3 consecutive readings is less than 5 mm. In either case use the average drop of the last 3 readings in computing "T".
- (e) If the initial fillings to 300 mm take more than 10 minutes to seep away, follow with this procedure:
  - 1. Maintain at least 300 mm of water in the hole for at least 4 hours, or until the soil being tested has become swollen and saturated with water. At least 12 hours should be allowed for swelling in clay soils, although dry clay soils may require longer periods to obtain a stabilized percolation rate.

2. After swelling remove any loose material from the top of the sand or fine gravel.
3. Using a fixed reference point, adjust the water level to 150 mm above the sand or gravel and measure the water drop every 30 minutes for four hours or until a stable rate of drop is reached. If the first 150 mm seeps away in less than 30 minutes, use a 10 minute interval and run the test for one hour or until the drop rate is stabilized. A drop of 5 mm or less in a 30 minute interval is indicative of a soil of "T" close to or greater than 50 min/cm. If it is to be assessed increase the reading interval to 60 minutes.
4. Refill with water to the 150 mm level when necessary. Take readings until a stable rate of drop is reached. This may be when the drop in two successive readings does not vary by more than 1.5 mm or when the difference between the maximum and minimum readings of the last four readings does not exceed 5 mm. Once a stable rate is reached use the average drop of the last 3 readings in computing the percolation time.

(f)

$$\text{Percolation time} = \frac{\text{Time Interval (minutes)}}{\text{Average drop of last 3 readings (cm)}}$$

**a<sub>1</sub> A-8.2.1.3.(1) and (2) Balancing Tanks.** Where variable daily flows or peak flows occur, the flows to the sewage system may be balanced. The *sewage system* and any pump(s) that are installed to move the sanitary sewage, should be sized to accommodate a daily design *sanitary sewage* flow at least equal to the average daily sanitary sewage flow for the week. Balancing tanks should be sized in accordance with good engineering practice to ensure that peak flows can be accommodated.

**a<sub>1</sub> A-8.2.1.4. Clearance Requirements.** Where coarse natural soils exist it may be necessary to require greater clearance distances to wells or surface water than those listed in the Tables. This is of greater importance when applied to the shoreline properties of sensitive lakes, where it is desired to prevent phosphates from entering the lakes.

**a<sub>1</sub> A-8.7.4.2.(1) Fill Material.** Any leaching bed fill added to meet the requirements of 8.7.4.2.(1) shall be regarded as part of the sewage system and this fill must be contained on the lot or parcel of land in which the sewage system is located.

- a<sub>1</sub> **A-8.7.5.3.(2) Spacing of Distribution Pipes.** In order to evenly apply the effluent when a filter bed is used, the maximum spacing of distribution pipes should not be greater than 1.2 m.

**A-8.7.6.2. Trench Construction.** Care must be taken when constructing a shallow buried trench system. Soils have to be dry and protected to ensure smearing of the trench does not take place. If smearing does take place additional measure will need to be undertaken to ensure that the permeability of the soil is not affected in the trench.

## Appendix B

### Imperial Conversions of Metric Values

Imperial conversions may be determined using the factors listed below.

Conversion Factors		
to Convert	to	Multiply by
°C	°F	1.8 and add 32
g	oz	0.0353
g	lb	0.0022
kg	lb	2.2046
kg/m <sup>2</sup>	lb/ft <sup>2</sup>	0.20481
kPa	lb/in <sup>2</sup>	0.14503
kPa	lb/ft <sup>2</sup>	20.885
L	gal (Imp)	0.21997
L	gal (US)	0.26417
L/m <sup>2</sup>	gal/ft <sup>2</sup> (Imp)	0.02044
L/s*	gal/min (Imp)	13.198
L/s*	gal/min (US)	15.850
L/s**	ft <sup>3</sup> /min	2.1189
L/s·m	cfm/ft	0.64584
L/s·m <sup>2</sup>	cfm/ft <sup>2</sup>	0.19685
lx	ft-candle	0.09290
mm	in	0.03937
m	ft	3.2808
m <sup>2</sup>	ft <sup>2</sup>	10.764
m <sup>3</sup>	ft <sup>3</sup>	35.315
m <sup>3</sup> /h	ft <sup>3</sup> /min	0.58857
m/s	ft/min	196.85
MJ	Btu	947.82
m <sup>2</sup> ·C/W (RSI)	ft <sup>2</sup> ·in·°F/Btu (R)	5.6785
N	lbf	0.22481
ng/Pa·s·m <sup>2</sup>	perms	0.01741
W	Btu/h	3.4122
Column 1	2	3

Notes: \* liquid volume flowrate

\*\* air volume flowrate

## SI Units and their Multiples

The SI prefixes used to form names and symbols of decimal multiples and sub-multiples of SI units are:

Prefix	Symbol	Magnitude	Factor
exa	E	1 000 000 000 000 000 000	$10^{18}$
peta	P	1 000 000 000 000 000	$10^{15}$
tera	T	1 000 000 000 000	$10^{12}$
giga <sup>1</sup>	G	1 000 000 000	$10^9$
mega <sup>1</sup>	M	1 000 000	$10^6$
kilo <sup>1</sup>	k	1 000	$10^3$
hecto <sup>2</sup>	h	100	$10^2$
deca <sup>2</sup>	da	10	$10^1$
deci <sup>2</sup>	d	0.1	$10^{-1}$
centi <sup>2</sup>	c	0.01	$10^{-2}$
milli <sup>1</sup>	m	0.001	$10^{-3}$
micro <sup>1</sup>	$\mu$	0.000 001	$10^{-6}$
nano <sup>1</sup>	n	0.000 000 001	$10^{-9}$
pico	p	0.000 000 000 001	$10^{-12}$
femto	f	0.000 000 000 000 001	$10^{-15}$
atto	a	0.000 000 000 000 000 001	$10^{-18}$
Col. 1	2	3	4

**Notes:** (1) most frequently used

(2) avoid if possible

**Supplementary Standard SA-1**

**Objectives and Functional Statements  
Attributed to the Acceptable Solutions**

**August 15, 2006**

## **COMMENCEMENT**

Supplementary Standard SA-1 comes into force on the 31st day of December, 2006.

## **ERRATA**

e<sub>1</sub> Issued April 2nd, 2007.

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## **SA-1 Objectives and Functional Statements Attributed to the Acceptable Solutions**

### **1. SCOPE**

This standard specifies, for the purposes of Article 1.2.1.1. of Division A of the Building Code, the objectives and functional statements that have been attributed to acceptable solutions provided in Division B of the Building Code.

### **2. OBJECTIVES AND FUNCTIONAL STATEMENTS**

The objectives listed in this standard are those set out in Part 2 of Division A of the Building Code.

The functional statements listed in this standard are set out in Part 3 of Division A of the Building Code.

### **3. ATTRIBUTION TO ACCEPTABLE SOLUTIONS**

For the purposes of compliance with the Building Code, as required in Sentence 1.2.1.1.(2) of Division A of the Building Code, the objectives and functional statements attributed to the acceptable solutions in Division B shall be the objectives and functional statements listed in Tables 3 to 12.

**Table 8**  
**Objectives and Functional Statements Attributed to the**  
**Acceptable Solutions in Part 8 of Division B**

Acceptable Solution	Objective and Functional Statement
<b>8.1.1.1.</b>	<b>Scope</b>
(1)	
<b>8.1.1.2.</b>	<b>Definitions</b>
(1)	
<b>8.1.2.1.</b>	<b>Classification of Systems</b>
(1)	
<b>8.1.2.2.</b>	<b>Operation and Maintenance</b>
(1)	
<b>8.1.3.1.</b>	<b>Discharge</b>
(1)	[F81, F110, F111-OE] [F81, F110, F111-OH5]
(2)	
(3)	
(4)	
(5)	
(6)	
(7)	[F81, F110, F111-OE] [F81, F110, F111-OH5]
(8)	[F81, F111-OE] [F81, F111-OH5]
<b>8.2.1.1.</b>	<b>Scope</b>
(1)	
<b>8.2.1.2.</b>	<b>Site Evaluation</b>
(1)	[F110, F111, F112-OE] [F110, F111, F112-OH5]
(2)	
(3)	
<b>8.2.1.3.</b>	<b>Sewage System Design Flows</b>
(1)	
(2)	
(3)	
(4)	
<b>8.2.1.4.</b>	<b>Clearances</b>
(1)	
(2)	[F110, F112-OE] [F110, F112-OH5]

Acceptable Solution	Objective and Functional Statement
(3)	[F110, F112-OE] [F110, F112-OH2.1] [F110, F112-OH5]
(4)	[F110, F111, F112-OE] [F110, F111, F112-OH5]
<b>8.2.1.5.</b>	<b>Clearance Distances for Class 1, 2 and 3 Sewage Systems</b>
(1)	[F110, F112-OE] [F110, F112-OH5]
<b>8.2.1.6.</b>	<b>Clearances for a Class 4 or 5 Sewage System</b>
(1)	[F110, F112-OE] [F110, F112-OH2.1] [F110, F112-OH5]
(2)	[F110, F112-OE] [F110, F112-OH2.1] [F110, F112-OH5]
(3)	[F110-OE] [F110-OH2.1] [F110-OH5]
<b>8.2.2.1.</b>	<b>Application</b>
(1)	
<b>8.2.2.2.</b>	<b>Tanks</b>
(1)	[F110, F111, F112-OE] [F110, F111, F112-OH5] [F20-OP2.3]
(2)	[F110, F111, F112-OE] [F110, F111, F112-OH5] [F20-OP2.3]
(3)	
(4)	
(5)	[F82, F111-OE] [F82, F111-OH2.1] [F82, F111-OH5]
(6)	[F20-OP2.3]
(7)	[F81-OP2.6]
<b>8.2.2.3.</b>	<b>Septic Tanks</b>
(1)	[F111-OE] [F111-OH2.1] [F111-OH5]
(2)	[F111, F112-OE] [F111, F112-OH2.1] [F111, F112-OH5]

Acceptable Solution	Objective and Functional Statement
(3)	[F111, F112-OE] [F111, F112-OH2.1] [F111, F112-OH5]
(4)	[F111, F112-OE] [F111, F112-OH2.1] [F111, F112-OH5] (e) [F110-OE] (e) [F110-OH5]
(5)	[F111, F112-OE] [F111, F112-OH2.1] [F111, F112-OH5]
(6)	[F111, F112-OE] [F111, F112-OH2.1] [F111, F112-OH5]
(7)	[F111, F112-OE] [F111, F112-OH2.1] [F111, F112-OH5]
(8)	[F111, F112-OE] [F111, F112-OH2.1] [F111, F112-OH5]
(9)	[F82, F111-OE] [F82, F111-OH2.1] [F82, F111-OH5]
(10)	[F82, F111-OE] [F82, F111-OH2.1] [F82, F111-OH5]
(11)	[F82, F111-OE] [F82, F111-OH2.1] [F82, F111-OH5]
<b>8.2.2.4.</b>	<b>Holding Tanks</b>
(1)	[F82, F111-OE] [F82, F111-OH2.1] [F82, F111-OH5]
(2)	[F111-OE] [F111-OH2.1] [F111-OH5]
(3)	
(4)	
<b>8.3.1.1.</b>	<b>Scope</b>
(1)	

Acceptable Solution	Objective and Functional Statement
<b>8.3.1.2.</b>	<b>Application</b>
(1)	[F111, F112-OE] [F111, F112-OH2.1] [F111, F112-OH5]
(2)	
(3)	[F110-OE] [F110-OH5]
<b>8.3.2.1.</b>	<b>Construction Requirements</b>
(1)	(a), (b) [F42-OH2.5] (c), (d), (h) [F40-OH2.4] (e) [F101-OH6] (f), (g) [F50-OH1.1] (f), (g) [F42-OH2.5]
<b>8.3.3.1.</b>	<b>Construction Requirements</b>
(1)	(a) [F110, F112-OE] (a) [F110, F112-OH5] (b) [F20-OS2.2] (b), (d) [F113-OH2.6] (c) [F112-OE] (c) [F112-OH5] (d) [F110-OE]
<b>8.3.4.1.</b>	<b>Construction Requirements</b>
(1)	(a) [F40-OH2.4] [F113-OH2.6] (b) [F113-OH2.6] (c) [F111-OE] (c) [F111-OH5]
<b>8.3.5.1.</b>	<b>Construction Requirements</b>
(1)	(a) [F113-OH2.6] (b) [F40-OH2.4] (c) [F20-OS2.1]
<b>8.4.1.1.</b>	<b>Scope</b>
(1)	
<b>8.4.1.2.</b>	<b>Application</b>
(1)	[F110-OE] [F110-OH5]
(2)	
<b>8.4.2.1.</b>	<b>Construction Requirements</b>
(1)	[F110, F112-OE] [F110, F112-OH5]
(2)	[F113-OH2.6] [F20-OS2.2]
(3)	[F112-OE] [F112-OH5]

Acceptable Solution	Objective and Functional Statement
(4)	[F82-OE] [F42-OH2.5] [F113-OH2.6] [F82-OH5] [F30-OS3.1]
(5)	[F113-OH2.6]
(6)	[F111-OE] [F111-OH5]
(7)	[F112-OE] [F112-OH5]
<b>8.4.2.2.</b>	<b>Maximum Sewage Flow</b>
(1)	[F110, F112-OE] [F110, F112-OH5]
<b>8.4.2.3.</b>	<b>Sizing</b>
(1)	[F110, F112-OE] [F110, F112-OH5]
<b>8.5.1.1.</b>	<b>Scope</b>
(1)	
<b>8.5.1.2.</b>	<b>Application</b>
(1)	[F110, F112-OE] [F110, F112-OH5]
(2)	[F112-OE] [F112-OH5]
<b>8.5.2.1.</b>	<b>Construction Requirements</b>
(1)	[F110, F112-OE] [F110, F112-OH5]
(2)	[F113-OH2.6] [F20-OS2.2]
(3)	[F112-OE] [F112-OH5]
(4)	[F82-OE] [F42-OH2.5] [F113-OH2.6] [F82-OH5] [F30-OS3.1]
(5)	[F30-OS3.1]
(6)	[F113-OH2.6]
(7)	[F111-OE] [F111-OH5]
(8)	[F112-OE] [F112-OH5]
<b>8.6.1.1.</b>	<b>Scope</b>
(1)	



Acceptable Solution	Objective and Functional Statement
<b>8.6.1.2.</b>	<b>General Requirements</b>
(1)	[F112-OE] [F112-OH5]
<b>8.6.1.3.</b>	<b>Pumps and Siphons</b>
(1)	[F110, F111, F112-OE] [F110, F111, F112-OH2.1] [F110, F111, F112-OH5]
(2)	[F110, F111, F112-OE] [F110, F111, F112-OH5]
(3)	[F111, F113-OE] [F111, F113-OH5]
(4)	[F112-OE] [F112-OH5]
<b>8.6.2.1.</b>	<b>Septic Tank Systems</b>
(1)	[F110, F111-OE] [F110, F111-OH5]
(2)	[F110, F111-OE] [F110, F111-OH5]
(3)	[F82-OE] [F82-OH2.1]
<b>8.6.2.2.</b>	<b>Other Treatment Units</b>
(1)	[F110-OE] [F110-OH5]
(2)	[F110, F111-OE] [F110, F111-OH5]
(3)	[F111-OE] [F111-OH2.1] [F111-OH5]
(4)	[F111-OE] [F111-OH2.1] [F111-OH5]
(5)	
(6)	[F82, F111-OE] [F82, F111-OH2.1] [F82, F111-OH5]
<b>8.7.1.1.</b>	<b>Application</b>
(1)	[F110, F111-OE] [F110, F111-OH2.1] [F110, F111-OH5]
<b>8.7.2.1.</b>	<b>General Requirements</b>
(1)	[F110, F111-OE] [F110, F111-OH2.1] [F110, F111-OH5]

Acceptable Solution	Objective and Functional Statement
(2)	[F 104, F 110, F 111-OE] [F 104, F 110, F 111-OH2.1] [F 104, F 110, F 111-OH5] [F 104, F 110, F 111-OR2]
(3)	[F 110, F 111-OE] [F 110, F 111-OH2.1] [F 110, F 111-OH5]
(4)	[F 110, F 111-OE] [F 110, F 111-OH2.1] [F 110, F 111-OH5]
(5)	[F 110, F 111-OE] [F 110, F 111-OH2.1] [F 110, F 111-OH5]
<b>8.7.3.1.</b>	<b>Length of Distribution Pipe</b>
(1)	[F 110, F 111-OE] [F 110, F 111-OH2.1] [F 110, F 111-OH5]
(2)	[F 110-OE] [F 110-OH5]
(3)	[F 110-OE] [F 110-OH5]
(4)	[F 110-OE] [F 110-OH5]
<b>8.7.3.2.</b>	<b>Absorption Trenches</b>
(1)	[F 110, F 111-OE] [F 110, F 111-OH2.1] [F 110, F 111-OH5]
(2)	[F 110, F 111-OE] [F 110, F 111-OH2.1] [F 110, F 111-OH5]
<b>8.7.3.3.</b>	<b>Distribution Pipe</b>
(1)	[F 111-OE] [F 111-OH5]
(2)	[F 111-OE] [F 111-OH5]
(3)	[F 110, F 111-OE] [F 110, F 111-OH2.1] [F 110, F 111-OH5]
(4)	[F 110, F 111-OE] [F 110, F 111-OH2.1] [F 110, F 111-OH5]
(5)	

Acceptable Solution	Objective and Functional Statement
<b>8.7.4.1.</b>	<b>Loading Requirements</b>
(1)	[F 110, F 111-OE] [F 110, F 111-OH2.1] [F 110, F 111-OH5]
<b>8.7.4.2.</b>	<b>Construction Requirements</b>
(1)	[F 110, F 111-OE] [F 110, F 111-OH2.1] [F 110, F 111-OH5]
(2)	[F 110, F 111-OE] [F 110, F 111-OH2.1] [F 110, F 111-OH5]
(3)	[F 110, F 111-OE] [F 110, F 111-OH2.1] [F 110, F 111-OH5]
(4)	
(5)	[F 110, F 111-OE] [F 110, F 111-OH2.1] [F 110, F 111-OH5]
(6)	[F 110, F 111-OE] [F 110, F 111-OH2.1] [F 110, F 111-OH5]
(7)	[F 110, F 111-OE] [F 110, F 111-OH2.1] [F 110, F 111-OH5]
(8)	[F 110, F 111-OE] [F 110, F 111-OH2.1] [F 110, F 111-OH5]
(9)	[F 110, F 111-OE] [F 110, F 111-OH2.1] [F 110, F 111-OH5]
(10)	[F 110, F 111-OE] [F 110, F 111-OH2.1] [F 110, F 111-OH5]
(11)	[F 110, F 111-OE] [F 110, F 111-OH2.1] [F 110, F 111-OH5]
<b>8.7.5.1.</b>	<b>Application</b>
(1)	[F 110, F 111-OE] [F 110, F 111-OH2.1] [F 110, F 111-OH5]

Acceptable Solution	Objective and Functional Statement
<b>8.7.5.2.</b>	<b>Loading Requirements</b>
(1)	[F 110, F 111-OE] [F 110, F 111-OH2.1] [F 110, F 111-OH5]
(2)	[F 110, F 111-OE] [F 110, F 111-OH2.1] [F 110, F 111-OH5]
(3)	[F 110, F 111, F 112-OE] [F 110, F 111, F 112-OH2.1] [F 110, F 111, F 112-OH5]
(4)	[F 110, F 111, F 112-OE] [F 110, F 111, F 112-OH2.1] [F 110, F 111, F 112-OH5]
(5)	[F 110, F 111, F 112-OE] [F 110, F 111, F 112-OH2.1] [F 110, F 111, F 112-OH5]
<b>8.7.5.3.</b>	<b>Construction Requirements</b>
(1)	
(2)	[F 110, F 112-OE] [F 110, F 112-OH2.1] [F 110, F 112-OH5]
(3)	[F 110, F 112-OE] [F 110, F 112-OH2.1] [F 110, F 112-OH5]
(4)	[F 110, F 111, F 112-OE] [F 110, F 111, F 112-OH2.1] [F 110, F 111, F 112-OH5]
(5)	[F 110, F 111-OE] [F 110, F 111-OH2.1] [F 110, F 111-OH5]
(6)	[F 110, F 111, F 112-OE] [F 110, F 111, F 112-OH2.1] [F 110, F 111, F 112-OH5]
(7)	
<b>8.7.6.1.</b>	<b>Limitation on Installation</b>
(1)	[F 110, F 111, F 112-OE] [F 110, F 111, F 112-OH2.1] [F 110, F 111, F 112-OH5]
<b>8.7.6.2.</b>	<b>Construction Requirements</b>
(1)	[F 112-OE] [F 112-OH5]

Acceptable Solution	Objective and Functional Statement
(2)	[F110, F111, F112-OE] [F110, F111, F112-OH2.1] [F110, F111, F112-OH5]
(3)	[F110, F111-OE] [F110, F111-OH2.1] [F110, F111-OH5]
(4)	[F20-OS2.2]
(5)	[F110, F111-OE] [F110, F111-OH2.1] [F110, F111-OH5]
(6)	
<b>8.8.1.1</b>	<b>Prohibited Installation</b>
(1)	
<b>8.8.1.2.</b>	<b>Acceptable Installation</b>
(1)	[F110-OE] [F110-OH5]
(2)	[F82, F110-OE] [F82, F110-OH5]
<b>8.8.2.1.</b>	<b>Construction Requirements</b>
(1)	[F82, F110-OE] [F82, F110-OH5]
(2)	[F82, F110-OE] [F82, F110-OH5]
(3)	[F110-OE] [F110-OH5]
(4)	[F110-OE] [F110-OH5]
<b>8.8.2.2.</b>	<b>Sizing of Holding Tanks</b>
(1)	[F110, F111-OE] [F110, F111-OH2.1] [F110, F111-OH5]
<b>8.9.1.1.</b>	<b>Scope</b>
(1)	
<b>8.9.1.2.</b>	<b>General Requirements for Operation and Maintenance</b>
(1)	[F110-OE] [F110-OH5]
(2)	
<b>8.9.2.1.</b>	<b>Scope</b>
(1)	
<b>8.9.2.2.</b>	<b>General</b>
(1)	[F110, F111-OE] [F110, F111-OH2.1] [F110, F111-OH5]

Acceptable Solution	Objective and Functional Statement
<b>8.9.2.3.</b>	<b>Class 4 Sewage Systems</b>
(1)	[F110, F111-OE] [F110, F111-OH2.1] [F110, F111-OH5]
(2)	[F82, F110-OE] [F82, F110-OH5]
(3)	
<b>8.9.2.4.</b>	<b>Shallow Buried Trenches</b>
(1)	[F82, F110-OE] [F82, F110-OH5]
(2)	[F82, F110-OE] [F82, F110-OH5]
<b>8.9.2.5.</b>	<b>Class 5 Sewage Systems</b>
(1)	[F82, F110-OE] [F82, F110-OH5]
(2)	[F110-OE] [F110-OH5]
<b>8.9.3.1.</b>	<b>Scope</b>
(1)	
<b>8.9.3.2.</b>	<b>General</b>
(1)	[F110, F111-OE] [F110, F111-OH2.1] [F110, F111-OH5]
(2)	[F110, F111-OE] [F110, F111-OH2.1] [F110, F111-OH5]
(3)	
<b>8.9.3.3.</b>	<b>Interceptors</b>
(1)	[F110, F111-OE] [F110, F111-OH2.1] [F110, F111-OH5]
<b>8.9.3.4.</b>	<b>Class 4 Sewage Systems</b>
(1)	[F110, F111-OE] [F110, F111-OH2.1] [F110, F111-OH5]
<b>8.9.3.5.</b>	<b>Shallow Buried Trenches</b>
(1)	[F110, F111-OE] [F110, F111-OH2.1] [F110, F111-OH5]

**Supplementary Standard SB-5**  
**Approved Sewage Treatment Units**

**March 9, 2007 update**

## **COMMENCEMENT**

Supplementary Standard SB-5 comes into force on the 31st day of December, 2006.

m, Ruling of the Minister of Municipal Affairs and Housing (Minister's Ruling) MR-07-S-02 takes effect on the 9th day of March, 2007.

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## SB-5 Approved Sewage Treatment Units

**Table 1**  
**List of Approved Treatment Units Meeting Secondary Effluent Quality Criteria**  
**in Table 8.6.2.2.A. of Division B in the 2006 Building Code**

Manufacturer/Distributor	Models	References	Comments
<b>Former Aer-O-Flo Budd and Beaver Corp or C &amp; M Environmental Technologies Inc.</b> 131 Whitmore Road Unit 13 Woodbridge, Ontario L4L 6E4 Phone: 905-850-3904 Fax: 905-850-3981 Contact: Roy Budd ext. 222	* Model S-50 * Multi-Flo Models FTB 0.5 FTB 0.6 FTB 0.75 FTB 1 FTB 1.5	MOE letter dated: May 14, 1982	appended
<b>Nayadic, Inc.</b> P.O. Box 147 Lightstreet, PA 17839 Phone: 717-784-1653 c/o Former Aer-O-Flo Budd and Beaver Corp or C&M Env. Technologies Contact: Roy Budd (See above)	* Nayadic Models M-6A-F -1900 L/d M-8A-F -2300 L/d M-1050A-F -3000 L/d M-2000A-F -5700 L/d M-6A -1900 L/d M-8A -2300 L/d M-1050A -3000 L/d M-1200A -3785 L/d M-2000A -5700 L/d	MOE letter dated: Feb 8, 1993 July 21, 1993	appended appended
<b>Seprotech Systems Inc.</b> (formerly CMS Rotodisk Inc.) 2378 Holly Lane Ottawa, Ontario K1V 7P1 Phone: 613-523-1641 Fax: 613-731-0851 Contact: Cliff Johnson	* Models M30, 75, 125 * Models L250, 400, 500 * Model S-12	MOE letter dated: Sept 30, 1981 Oct 2, 1974	appended appended  Models: S-12, S-20, S-30, S-40, S-50, M-60, M-75, M-100, M-125, M-150, M-175, M-200, L-250, L-300, L-333, L-400, L-500, L-666, L-833, L-1500 satisfy the MOE requirements set out in the appended letters including CMS letter dated Feb 10, 1998.
Column 1	2	3	4

Table 1 (Cont'd)

List of Approved Treatment Units Meeting Secondary Effluent Quality Criteria  
in Table 8.6.2.2.A. of Division B in the 2006 Building Code

Manufacturer/Distributor	Models	References	Comments
<b>Norweco Equipment Company</b> 220 Republic Street Norwalk OH, 44857 Phone: 416-729-3212 419-668-4471 Fax: 419-663-5440 Contact: M. Price	Singular Model 900 2000 L/d 2850 L/d 3800 L/d 4700 L/d 5700 L/d	MOE letter dated: Feb 1, 1994	appended
<b>Orencia Systems Ltd.</b> c/o Onsite Sewage Inc. 1801 Bleams Road Kitchener, Ontario N2E 3X9 Phone: 519-578-0969 Fax: 519-745-2085 Contact: Walter Crawford	ISF 1010P -1000 L/d ISF 1515P -2275 L/d ISF 2018P -3600 L/d ISF 1036P -3600 L/d	MOE letter dated: Sept 12, 1996 June 28, 1996	appended appended
<b>Waterloo Biofilter Systems Inc.</b> 143 Dennis Street P.O. Box 400 Rockwood, ON N0B 2K0 Phone: 519-856-0757 Fax: 519-856-0759 Contact: E. C. Jowett	* Waterloo Biofilter	MOE letter dated: June 26, 1996 March 12, 1996	appended appended
<b>Northern Purification Systems</b> 823077 Ontario Inc. R.R. #1 2614 Concession 4 Loretto, Ontario L0G 1L0 Phone: 905-729-3212 Fax: 905-729-4171 Contact: Tom Musgrove	* Mono-Pure MP Mono-Pure GC * Cromaglass Models CA-5 CA-10 CA-20	MOE letter dated: July 2, 1986	appended
<b>Clearstream Sewage Treatment Systems</b> c/o Northern Purification Systems Contact: Tom Musgrove (see above)	* Models: 500N -1900 L/d 750N -2800 L/d 1000N -3785 L/d 1500N -5675 L/d	MOE letter dated: Nov 17, 1995	appended
Column 1	2	3	4

**Table 1 (Cont'd)**  
**List of Approved Treatment Units Meeting Secondary Effluent Quality Criteria**  
**in Table 8.6.2.2.A. of Division B in the 2006 Building Code**

Manufacturer/Distributor	Models	References	Comments
<b>G'Met Environmental Technologies Ecofiltration</b> (Peat Beds) 234 B. Russell Ave. Ottawa, Ontario K1N 7X5 Phone: 613-738-2991 Fax: 613-230-9484 Contact: Pierre Gratton	Ecofilo Biofiltration Treatment Unit	MOE letter dated: Feb 9, 1998	appended
<b>Whitewater Sewage Treatment Plants c/o Make-Way Environmental Technologies Inc.</b> P.O. Box 1869 Exeter, Ontario N0M 1S7 Phone: 866-625-3929 or 519-235-1176 Fax: 519-235-0570 Contact: Bert Knip	DF 40 -1500 L/d DF 50, 50A -1890 L/d DF 60 -2270 L/d DF 75 -2840 L/d DF 100 -3780 L/d DF 100A -3780 L/d DF 100B -3780 L/d DF 150 -5670 L/d	MOE letter dated: Sept 12, 1996 July 31, 1996	appended appended
<b>Southern Ontario Biocycle Ltd.</b> 280 South Blair St. Whitby, Ontario L1N 9N2 Phone: 905-665-0537 Fax: 905-665-7552 Contact: Jake Rempel	Models: 5800, 2500 L/d	MOE letter dated: Feb 19, 1997 Feb 28, 1997	appended appended
<b>Aquarobic Canada</b> P.O. Box 149 Utterson, Ontario POB 1M0 Phone: 800-452-0144 705-644-1877 Fax: 705-788-9204 Contact: John Reid	Aquarobic Mini Plant, Aquarobic Maxi Plant, Aquarobic Super Maxi Plant	MOE letter dated: Sept 15, 1980	appended
Column 1	2	3	4

**Table 2**  
**List of Approved Treatment Units Meeting Tertiary Effluent Quality**  
**Criteria in Table 8.6.2.2.A. of Division B in the 2006 Building Code**  
**(Approved for Shallow Buried Trenches)**

Manufacturer/Distributor	Models	Comments
<b>Norweco Equipment Company</b> 220 Republic Street Norwalk, OH, 44857 Phone: 416-729-3212 419-668-4471 Fax: 419-663-5440 Contact: M. Price	<b>Norweco Singulair Treatment Systems</b>  Models: 960-500-2000 960-750-3000 960-1000-4000 960-1250-4750 960-1500-5700	See attached system descriptions.
<b>Oreco Systems Inc.</b> c/o Onsite Sewage Inc. 1801 Bleams Road Kitchener, Ontario N2E 3X9 Phone: 519-578-0969 Fax: 519-745-2085 Contact: Walter Crawford  c/o Sand Filtration Inc. 35 A Shirk Place Kitchener, Ontario N2K 1R3 Phone: 519-743-1780 Fax: 519-743-1781	<b>Oreco Treatment Systems</b>  Models: ISF 1111HL, ISF 1313HL, ISF 1515HL, ISF 2000HL  ISF 1616LL, ISF 2020LL, ISF 2222LL, ISF 2828LL  RSF 2010, RSF 1615, RSF 1818, RSF 3210, RSF 2018, RSF 2020, RSF 2220, RSF 2420, RSF 3216	See attached system descriptions.
<b>Waterloo Biofilter Systems Inc.</b> 143 Dennis Street, P.O. Box 400 Rockwood, ON N0B 2K0 Phone: 519-856-0757 Fax: 519-856-0759 Contact: E. C. Jowett	<b>Waterloo Biofilter Treatment Systems</b>  Models: 11, 16, 20, 25, 30, 35, 40, 45, 50, 55, 60, 65, 70, 75, 80, 85, 90, 95, 100	See attached system descriptions.
<b>Northern Purification Systems</b> 823077 Ontario Inc. R.R. #1, 2614 Concession 4 Loretto, Ontario L0G 1L0 Phone: 905-729-3212 Fax: 905-729-4171 Contact: Tom Musgrove	<b>Clearstream Treatment Systems</b>  Models: 500N 600N 750N 1000N 1500N	See attached system descriptions.
<b>G*Met Environmental Technologies,</b> <b>Ecoflo Ontario (Peat Beds)</b> 234 B. Russell Ave. Ottawa, Ontario K1N 7X5 Phone: 613-738-2991 Fax: 613-230-9484 Contact: Pierre Gratton	<b>Ecoflo Biofilter Treatment Systems</b>  Models: ST-500-PF / STB-500-PF ST-500-GF / STB-500-GF ST-650-PF / STB-650-PF ST-650-GF / STB-650-GF ST-500 MCRI-PF STB-500 MCRI-PF ST-650 MCRI-PF STB-650 MCRI-PF	See attached system descriptions.
Column 1	2	3

**Table 2 (Cont'd)**  
**List of Approved Treatment Units Meeting Tertiary Effluent Quality**  
**Criteria in Table 8.6.2.2.A. of Division B in the 2006 Building Code**  
**(Approved for Shallow Buried Trenches)**

Manufacturer/Distributor	Models	Comments
<b>Whitewater Sewage Treatment Plants</b> c/o Make-Way Environmental Technologies Inc. P.O. Box 1869 Exeter, Ontario N0M 1S7 Phone: 866-625-3929 or 519-235-1176 Fax: 519-235-0570 Contact: Bert Knip	<b>Whitewater Treatment Systems</b>  Models: DF 50 FF      DF 100 FF DF 60 FF      DF 150 FF DF 75 FF      DF 150X2 FF	See attached system descriptions.
<b>Southern Ontario Biocycle Ltd.</b> 280 South Blair St. Whitby, Ontario L1N 9N2 Phone: 905-665-0537 Fax: 905-665-7552 Contact: Jake Rempel	<b>Biocycle Aerated Wastewater System</b>  Model: 5800-10	See attached system description.
<b>Seprotech Systems Inc.</b> (formerly CMS Rotodisk Inc.) 2378 Holly Lane Ottawa, Ontario K1V 7P1 Phone: 613-523-1641 Fax: 613-731-0851 Contact: Cliff Johnson	<b>Rotordisk Wastewater Systems</b>  Model: S12	See attached system description.
<b>Bio-Microbics, Inc.</b> 8450 Cole Pkwy. Shawnee, KS USA 66227 Phone: 913-422-0707 or 800-753-3278 Fax: 913-422-0808 Contact: R. Peat	<b>FAST® Wastewater Treatment Systems</b>  Model: Microf AST® 0.5 Model: Microf AST® 0.75 Model: Microf AST® 0.9 Model: Microf AST® 1.5	See attached system descriptions.
<b>Aquarobic Canada</b> P.O. Box 149 Utterson, Ontario POB 1M0 Phone: 705-644-1877 or 800-452-0144 Fax: 705-788-9204 Contact: John Reid	Model MicroMini-28 Model MicroMini-45 Model MiniPlant 70 Model MiniPlant 85	See attached system descriptions.
Column 1	2	3

**Table 2 (Cont'd)**  
**List of Approved Treatment Units Meeting Tertiary Effluent Quality**  
**Criteria in Table 8.6.2.2.A. of Division B in the 2006 Building Code**  
**(Approved for Shallow Buried Trenches)**

Manufacturer/Distributor	Models	Comments
<b>Nayadic Wastewater Treatment Systems</b> c/o EZFlow Canada 7024 Smith Industrial Drive McGregor, Ontario N0R 1J0 Phone: 519-726-6444 Fax: 519-726-6211 Contact: Janis Bortolotti or John Winkup	Model M6A Model M8A Model M1050A Model M1200A Model M2000A	See attached system descriptions.
<b>Bionest Technologies Inc.</b> 55, 12e Rue, CP 697 Grand-Mere, Quebec G9T 5L4 Phone: 819-538-5662 or 866-538-5662 Fax: 819-538-5707 Contact: Marlene Bonneville	<b>Bionest Treatment Systems</b>  Models: BN-400                  BN-1000 BN-500                  BN-1500 BN-600                  BN-2000 BN-750                  BN-2650	See attached system descriptions.
<b>Premier Tech Environment</b> 1 Ave. Premier Riviere-du-Loup, Quebec G5R 6C1 Phone: 418-867-8883 Fax: 418-862-6642 Contact: Michel Lemieux	<b>Ecoflo Biofilter Treatment Systems Housed in a Concrete Shell</b>  Models: ST-500B-PF ST-500B-GF ST-650B-PF ST-650B-GF	See attached system descriptions.
Column 1	2	3

## **Norweco Singulair® Treatment Systems**

### **Model 960-500-2000**

This Norweco Singulair® Treatment Unit is designed for **daily design sanitary sewage flow of 1100 L to 2000 L**. It consists of a treatment unit with a 1.7 m<sup>3</sup> volume baffled pretreatment chamber, a 2.3 m<sup>3</sup> volume aeration chamber equipped with aspirator aerator rated at 1.42 L/s, a 0.95 m<sup>3</sup> settling chamber equipped with sludge return, and a Bio-Kinetic® flow equalization and micro-screening device discharging to a single pass free access sand filter or a dosing pump chamber.

Where the percolation rate of the native subsoil is between 50 min/cm and 125 min/cm, the treatment unit shall include a single pass sand filter consisting of a tank equipped with openings accessible from grade, 100 mm distribution piping, sand filter with an area of 3.4 m<sup>2</sup> and a depth of 450 mm (sand media with 0.4 mm to 1.5 mm dia. effective size with 3 uniformity coefficient); 150 mm pea gravel layer and 100 mm dia. slotted collection piping discharging the effluent by gravity to an effluent dosing chamber.

The dosing chamber consists of a precast concrete effluent dosing pump chamber with 3.5 m<sup>3</sup> volumetric capacity, a minimum 0.3 HP submersible pump, level switches, alarms and control panel and a forcemain discharging the effluent.

This approval is only for the treatment unit component of the sewage system and **the sewage system shall comply with the Ontario Building Code, as amended from time to time.**

It is the responsibility of the Norweco Equipment Company and/or its licensed agents to ensure that units meet all other applicable standards. Other standards may include those of the Canadian Standards Association, Ontario Ministry of Labour, Electrical Safety Authority, etc.

### **Model 960-750-3000**

This Norweco Singulair® Treatment Unit is designed for **daily design sanitary sewage flow of 2000 L to 3000 L**. It consists of a treatment unit with a 2.1 m<sup>3</sup> volume baffled pretreatment chamber, a 2.8 m<sup>3</sup> volume aeration chamber equipped with aspirator aerator rated at 1.42 L/s, a 1.1 m<sup>3</sup> settling chamber equipped with sludge return, and a Bio-Kinetic® flow equalization and micro-screening device discharging to a single pass free access sand filter or a dosing pump chamber.



Where the percolation rate of the native subsoil is between 50 min/cm and 125 min/cm, the treatment unit shall include a single pass sand filter consisting of a tank equipped with openings accessible from grade, 100 mm distribution piping, sand filter with an area of 5.1 m<sup>2</sup> and a depth of 450 mm (sand media with 0.4 mm to 1.5 mm dia. effective size with 3 uniformity coefficient); 150 mm pea gravel layer and 100 mm dia. slotted collection piping discharging the effluent by gravity to an effluent dosing chamber.

The dosing chamber consists of a precast concrete effluent dosing pump chamber with 5.5 m<sup>3</sup> volumetric capacity, a minimum 0.3 HP submersible pump, level switches, alarms and control panel and a forcemain discharging the effluent.

This approval is only for the treatment unit component of the sewage system and the sewage system shall comply with the Ontario Building Code, as amended from time to time.

It is the responsibility of the Norweco Equipment Company and/or its licensed agents to ensure that units meet all other applicable standards. Other standards may include those of the Canadian Standards Association, Ontario Ministry of Labour, Electrical Safety Authority, etc.

#### **Model 960-1000-4000**

This Norweco Singulair<sup>®</sup> Treatment Unit is designed for **daily design sanitary sewage flow of 3000 L to 4000 L**. It consists of a treatment unit with a 3.8 m<sup>3</sup> volume baffled pretreatment chamber; a two (2) cell, 4 m<sup>3</sup> volume aeration chamber equipped with two (2) aspirator aerators, each rated at 1.42 L/s; a 1.0 m<sup>3</sup> settling chamber equipped with sludge return; and two (2) Bio-Kinetic<sup>®</sup> flow equalization and micro-screening devices discharging to a single pass free access sand filter or a dosing pump chamber.

Where the percolation rate of the native subsoil is between 50 min/cm and 125 min/cm, the treatment unit shall include a single pass sand filter consisting of a tank equipped with openings accessible from grade, 100 mm distribution piping, sand filter with an area of 6.8 m<sup>2</sup> and a depth of 450 mm (sand media with 0.4 mm to 1.5 mm dia. effective size with 3 uniformity coefficient); 150 mm pea gravel layer and 100 mm dia. slotted collection piping discharging the effluent by gravity to an effluent dosing chamber.



The dosing chamber consists of a precast concrete effluent dosing pump chamber with 7.0 m<sup>3</sup> volumetric capacity, a minimum 0.3 HP submersible pump, level switches, alarms and control panel and a forcemain discharging the effluent.

This approval is only for the treatment unit component of the sewage system and **the sewage system shall comply with the Ontario Building Code, as amended from time to time.**

It is the responsibility of the Norweco Equipment Company and/or its licensed agents to ensure that units meet all other applicable standards. Other standards may include those of the Canadian Standards Association, Ontario Ministry of Labour, Electrical Safety Authority, etc.

### **Model 960-1250-4750**

This Norweco Singulair<sup>®</sup> Treatment Unit is designed for **daily design sanitary sewage flow of 4000 L to 4750 L**. It consists of a treatment unit with a 4.75 m<sup>3</sup> volume baffled pretreatment chamber; a two (2) cell, 4.9 m<sup>3</sup> volume aeration chamber equipped with two (2) aspirator aerators, each rated at 1.42 L/s; a 1.14 m<sup>3</sup> settling chamber equipped with two (2) sludge returns; and three (3) Bio-Kinetic<sup>®</sup> flow equalization and micro-screening devices discharging to a single pass free access sand filter or a dosing pump chamber.

Where the percolation rate of the native subsoil is between 50 min/cm and 125 min/cm, the treatment unit shall include a single pass sand filter consisting of a tank equipped with openings accessible from grade, 100 mm distribution piping, sand filter with an area of 8.1 m<sup>2</sup> and a depth of 450 mm (sand media with 0.4 mm to 1.5 mm dia. effective size with 3 uniformity coefficient); 150 mm pea gravel layer and 100 mm dia. slotted collection piping discharging the effluent by gravity to an effluent dosing chamber.

The dosing chamber consists of a precast concrete effluent dosing pump chamber with 8.3 m<sup>3</sup> volumetric capacity, a minimum 0.3 HP submersible pump, level switches, alarms and control panel and a forcemain discharging the effluent.

This approval is only for the treatment unit component of the sewage system and **the sewage system shall comply with the Ontario Building Code, as amended from time to time.**

It is the responsibility of the Norweco Equipment Company and/or its licensed agents to ensure that units meet all other applicable standards. Other standards may include those of the Canadian Standards Association, Ontario Ministry of Labour, Electrical Safety Authority, etc.

### **Model 960-1500-5700**

This Norweco Singulair® Treatment Unit is designed for **daily design sanitary sewage flow of 4750 L to 5700 L**. It consists of a treatment unit with a 5.7 m<sup>3</sup> volume baffled pretreatment chamber; a two (2) cell, 5.9 m<sup>3</sup> volume aeration chamber equipped with two (2) aspirator aerators, each rated at 1.42 L/s; a 1.32 m<sup>3</sup> settling chamber equipped with two (2) sludge returns; and three (3) Bio-Kinetic® flow equalization and micro-screening devices discharging to a single pass free access sand filter or a dosing pump chamber.

Where the percolation rate of the native subsoil is between 50 min/cm and 125 min/cm, the treatment unit shall include a single pass sand filter consisting of a tank equipped with openings accessible from grade, 100 mm distribution piping, sand filter with an area of 9.7 m<sup>2</sup> and a depth of 450 mm (sand media with 0.4 mm to 1.5 mm dia. effective size with 3 uniformity coefficient); 150 mm pea gravel layer and 100 mm dia. slotted collection piping discharging the effluent by gravity to an effluent dosing chamber.

The dosing chamber consists of a precast concrete effluent dosing pump chamber with 9.9 m<sup>3</sup> volumetric capacity, a minimum 0.3 HP submersible pump, level switches, alarms and control panel and a forcemain discharging the effluent.

This approval is only for the treatment unit component of the sewage system and **the sewage system shall comply with the Ontario Building Code, as amended from time to time.**

It is the responsibility of the Norweco Equipment Company and/or its licensed agents to ensure that units meet all other applicable standards. Other standards may include those of the Canadian Standards Association, Ontario Ministry of Labour, Electrical Safety Authority, etc.



## Orenco Treatment Systems

### High Load Intermittent Sand Filter Systems:

#### Model ISF1111HL

This Orenco Treatment Unit is designed for **daily design sanitary sewage flow of up to 1100 L**. The system requires a standard septic tank with minimum volume of 4400 L, complete with an effluent filter on the outlet to screen out particles larger than 3 mm, overflowing to a pump chamber.

The pump chamber has a minimum nominal diameter of 380 mm and a minimum effective depth of 1200 mm. It is equipped with a minimum 0.5 HP effluent dosing pump, complete with level switches, alarm and control panel, discharging to a sand filter.

The sand filter has an area of 11.25 m<sup>2</sup>, is contained in a 30 mil PVC liner and it is designed to have a hydraulic loading rate no greater than 100 L/m<sup>2</sup>/day. It includes a pressure distribution manifold, with laterals of a minimum 25 mm dia. pressure pipe, centered at 360 mm. The pipes have 3 mm dia. orifices, centered at 600 mm. The pipes are covered with a 150 mm layer of 9 mm washed pea stone and with cold weather shields. The layer of stone is underlaid by 600 mm of high load filter media. The filter media conforms to the following sieve sizing: #3/8: 100% passing; #4: 77-100% passing; #8: 53-100% passing; #16: 15-80% passing; #30: 3-50% passing; #50: 0-1% passing; #100: 0-1% passing; #200: 0-1% with D<sub>10</sub> = 0.4 to 0.9 mm and C<sub>u</sub> = 1 to 4. The sand filter media is underlaid by 150 mm of 19 mm clear stone containing a 100 mm dia., slotted drainage pipe discharging to a dosing pump chamber.

The dosing chamber has a minimum of 380 mm nominal dia. and a minimum of 900 mm effective depth. It is equipped with a minimum 0.5 HP effluent pump, level switches, alarms and control panel, discharging the effluent at controlled intervals.

This approval is only for the treatment unit component of the sewage system and **the sewage system shall comply with the Ontario Building Code, as amended from time to time.**

It is the responsibility of the Orenco Systems Inc. and/or its licensed agents to ensure that units meet all other applicable standards. Other standards may include those of the Canadian Standards Association, Ontario Ministry of Labour, Electrical Safety Authority, etc.

### Model ISF1313HL

This Orenco Treatment Unit is designed for **daily design sanitary sewage flow of up to 1600 L**. The system requires a standard septic tank with minimum volume of 6400 L, complete with an effluent filter on the outlet to screen out particles larger than 3 mm, overflowing to a pump chamber.

The pump chamber has a minimum nominal diameter of 380 mm and a minimum effective depth of 1200 mm. It is equipped with a minimum 0.5 HP effluent dosing pump, complete with level switches, alarm and control panel, discharging to a sand filter.

The sand filter has an area of 15.71 m<sup>2</sup>, is contained in a 30 mil PVC liner and it is designed to have a hydraulic loading rate no greater than 100 L/m<sup>2</sup>/day. It includes a pressure distribution manifold, with laterals of a minimum 25 mm dia. pressure pipe, centered at 360 mm. The pipes have 3 mm dia. orifices, centered at 600 mm. The pipes are covered with a 150 mm layer of 9 mm washed pea stone and with cold weather shields. The layer of stone is underlaid by 600 mm of high load filter media. The filter media conforms to the following sieve sizing: #3/8: 100% passing; #4: 77-100% passing; #8: 53-100% passing; #16: 15-80% passing; #30: 3-50% passing; #50: 0-1% passing; #100: 0-1% passing; #200: 0-1% with  $D_{10} = 0.4$  to 0.9 mm and  $C_u = 1$  to 4. The sand filter media is underlaid by 150 mm of 19 mm clear stone containing a 100 mm dia., slotted drainage pipe discharging to a dosing pump chamber.

The dosing chamber has a minimum of 380 mm nominal dia. and a minimum of 900 mm effective depth. It is equipped with a minimum 0.5 HP effluent pump, level switches, alarms and control panel, discharging the effluent at controlled intervals.

This approval is only for the treatment unit component of the sewage system and **the sewage system shall comply with the Ontario Building Code, as amended from time to time.**

It is the responsibility of the Orenco Systems Inc. and/or its licensed agents to ensure that units meet all other applicable standards. Other standards may include those of the Canadian Standards Association, Ontario Ministry of Labour, Electrical Safety Authority, etc.

**Model ISF1515HL**

This Orenco Treatment Unit is designed for **daily design sanitary sewage flow of up to 2000 L**. The system requires a standard septic tank with minimum volume of 8000 L, complete with a physical filter on the outlet to screen out particles larger than 3 mm, overflowing to a pump chamber.

The pump chamber has a minimum nominal diameter of 380 mm and a minimum effective depth of 1200 mm. It is equipped with a minimum 0.5 HP effluent dosing pump, complete with level switches, alarm and control panel, discharging to a sand filter.

The sand filter has an area of  $29.91 \text{ m}^2$ , is contained in a 30 mil PVC liner and it is designed to have a hydraulic loading rate no greater than  $100 \text{ L/m}^2/\text{day}$ . It includes a pressure distribution manifold, with laterals of a minimum 25 mm dia. pressure pipe, centered at 360 mm. The pipes have 3 mm dia. orifices, centered at 600 mm. The pipes are covered with a 150 mm layer of 9 mm washed pea stone and with cold weather shields. The layer of stone is underlaid by 600 mm of high load filter media. The filter media conforms to the following sieve sizing: #3/8: 100% passing; #4: 77-100% passing; #8: 53-100% passing; #16: 15-80% passing; #30: 3-50% passing; #50: 0-1% passing; #100: 0-1% passing; #200: 0-1% with  $D_{10} = 0.4$  to  $0.9 \text{ mm}$  and  $C_u = 1$  to  $4$ . The sand filter media is underlaid by 150 mm of 19 mm clear stone containing a 100 mm dia., slotted drainage pipe discharging to a dosing pump chamber.

The dosing chamber has a minimum of 380 mm nominal dia. and a minimum of 900 mm effective depth. It is equipped with a minimum 0.5 HP effluent pump, level switches, alarms and control panel, discharging the effluent at controlled intervals.

This approval is only for the treatment unit component of the sewage system and **the sewage system shall comply with the Ontario Building Code, as amended from time to time.**

It is the responsibility of the Orenco Systems Inc. and/or its licensed agents to ensure that units meet all other applicable standards. Other standards may include those of the Canadian Standards Association, Ontario Ministry of Labour, Electrical Safety Authority, etc.

**Model ISF2000HL**

This Orenco Treatment Unit is designed for **daily design sanitary sewage flow of 2000 L to 10 000 L**. The system requires a standard septic tank with minimum volume of four times the daily design sanitary sewage flow, complete with an effluent filter on the outlet to screen out particles larger than 3 mm, overflowing to a pump chamber.

The pump chamber has a minimum nominal diameter of 380 mm and a minimum effective depth of 1200 mm. It is equipped with a minimum 0.5 HP effluent dosing pump, complete with level switches, alarm and control panel, discharging to a sand filter.

The sand filter is contained in a 30 mil PVC liner and it is designed to have a hydraulic loading rate no greater than 100 L/m<sup>2</sup>/day. It includes a pressure distribution manifold, with laterals of a minimum 25 mm dia. pressure pipe, centered at 360 mm. The pipes have 3 mm dia. orifices, centered at 600 mm. The pipes are covered with a 150 mm layer of 9 mm washed pea stone and with cold weather shields. The layer of stone is underlaid by 600 mm of high load filter media. The filter media conforms to the following sieve sizing: #3/8: 100% passing; #4: 77-100% passing; #8: 53-100% passing; #16: 15-80% passing; #30: 3-50% passing; #50: 0-1% passing; #100: 0-1% passing; #200: 0-1% with  $D_{10} = 0.4$  to 0.9 mm and  $C_u = 1$  to 4. The sand filter media is underlaid by 150 mm of 19 mm clear stone containing a 100 mm dia., slotted drainage pipe discharging to a dosing pump chamber.

The dosing chamber has a minimum of 380 mm nominal dia. and a minimum of 900 mm effective depth. It is equipped with a minimum 0.5 HP effluent pump, level switches, alarms and control panel, discharging the effluent at controlled intervals.

This approval is only for the treatment unit component of the sewage system and **the sewage system shall comply with the Ontario Building Code, as amended from time to time.**

It is the responsibility of the Orenco Systems Inc. and/or its licensed agents to ensure that units meet all other applicable standards. Other standards may include those of the Canadian Standards Association, Ontario Ministry of Labour, Electrical Safety Authority, etc.



## Low Load Intermittent Sand Filter Systems:

### Model ISF1616LL

This Orenco Treatment Unit is designed for **daily design sanitary sewage flow of up to 1100 L**. The system requires a standard septic tank with minimum volume of 4400 L, complete with an effluent filter on the outlet to screen out particles larger than 3 mm, overflowing to a pump chamber.

The pump chamber has a minimum nominal diameter of 380 mm and a minimum effective depth of 1200 mm. It is equipped with a minimum 0.5 HP effluent dosing pump, complete with level switches, alarm and control panel, discharging to a sand filter.

The sand filter has an area of 23.79 m<sup>2</sup>, is contained in a 30 mil PVC liner and it is designed to have a hydraulic loading rate no greater than 50 L/m<sup>2</sup>/day. It includes a pressure distribution manifold, with laterals of a minimum 25 mm dia. pressure pipe, centered at 600 mm. The pipes have 3 mm dia. orifices, centered at 600 mm. The pipes are covered with a 150 mm layer of 9 mm washed pea stone and with cold weather shields. The layer of stone is underlaid by 600 mm of high load filter media. The filter media conforms to the following sieve sizing: #3/8: 100% passing; #4: 95-100% passing; #8: 80-100% passing; #16: 45-85% passing; #30: 15-60% passing; #50: 3-10% passing; #100: 0-2% passing; #200: 0-1% passing with  $D_{10} = 0.3$  to 0.5 mm and  $C_u = 1$  to 4. The sand filter media is underlaid by 150 mm of 19 mm clear stone containing a 100 mm dia., slotted drainage pipe discharging to a dosing pump chamber.

The dosing chamber has a minimum of 380 mm nominal dia. and a minimum of 900 mm effective depth. It is equipped with a minimum 0.5 HP effluent pump, level switches, alarms and control panel, discharging the effluent at controlled intervals.

This approval is only for the treatment unit component of the sewage system and **the sewage system shall comply with the Ontario Building Code, as amended from time to time.**

It is the responsibility of the Orenco Systems Inc. and/or its licensed agents to ensure that units meet all other applicable standards. Other standards may include those of the Canadian Standards Association, Ontario Ministry of Labour, Electrical Safety Authority, etc.

**Model ISF2020LL**

This Orenco Treatment Unit is designed for **daily design sanitary sewage flow of up to 1600 L**. The system requires a standard septic tank with minimum volume of 6400 L, complete with an effluent filter on the outlet to screen out particles larger than 3 mm, overflowing to a pump chamber.

The pump chamber has a minimum nominal diameter of 380 mm and a minimum effective depth of 1200 mm. It is equipped with a minimum 0.5 HP effluent dosing pump, complete with level switches, alarm and control panel, discharging to a sand filter.

The sand filter has an area of 37.17 m<sup>2</sup>, is contained in a 30 mil PVC liner and it is designed to have a hydraulic loading rate no greater than 50 L/m<sup>2</sup>/day. It includes a pressure distribution manifold, with laterals of a minimum 25 mm dia. pressure pipe, centered at 600 mm. The pipes have 3 mm dia. orifices, centered at 600 mm. The pipes are covered with a 150 mm layer of 9 mm washed pea stone and with cold weather shields. The layer of stone is underlaid by 600 mm of high load filter media. The filter media conforms to the following sieve sizing: #3/8: 100% passing; #4: 95-100% passing; #8: 80-100% passing; #16: 45-85% passing; #30: 15-60% passing; #50: 3-10% passing; #100: 0-2% passing; #200: 0-1% passing with  $D_{10} = 0.3$  to 0.5 mm and  $C_u = 1$  to 4. The sand filter media is underlaid by 150 mm of 19 mm clear stone containing a 100 mm dia., slotted drainage pipe discharging to a dosing pump chamber.

The dosing chamber has a minimum of 380 mm nominal dia. and a minimum of 900 mm effective depth. It is equipped with a minimum 0.5 HP effluent pump, level switches, alarms and control panel, discharging the effluent at controlled intervals.

This approval is only for the treatment unit component of the sewage system and **the sewage system shall comply with the Ontario Building Code, as amended from time to time.**

It is the responsibility of the Orenco Systems Inc. and/or its licensed agents to ensure that units meet all other applicable standards. Other standards may include those of the Canadian Standards Association, Ontario Ministry of Labour, Electrical Safety Authority, etc.



### Model ISF2222LL

This Orenco Treatment Unit is designed for **daily design sanitary sewage flow of up to 2000 L**. The system requires a standard septic tank with minimum volume of 8000 L, complete with an effluent filter on the outlet to screen out particles larger than 3 mm, overflowing to a pump chamber.

The pump chamber has a minimum nominal diameter of 380 mm and a minimum effective depth of 1200 mm. It is equipped with a minimum 0.5 HP effluent dosing pump, complete with level switches, alarm and control panel, discharging to a sand filter.

The sand filter has an area of 44.98 m<sup>2</sup>, is contained in a 30 mil PVC liner and it is designed to have a hydraulic loading rate no greater than 50 L/m<sup>2</sup>/day. It includes a pressure distribution manifold, with laterals of a minimum 25 mm dia. pressure pipe, centered at 600 mm. The pipes have 3 mm dia. orifices, centered at 600 mm. The pipes are covered with a 150 mm layer of 9 mm washed pea stone and with cold weather shields. The layer of stone is underlaid by 600 mm of high load filter media. The filter media conforms to the following sieve sizing: #3/8: 100% passing; #4: 95-100% passing; #8: 80-100% passing; #16: 45-85% passing; #30: 15-60% passing; #50: 3-10% passing; #100: 0-2% passing; #200: 0-1% passing with  $D_{10} = 0.3$  to 0.5 mm and  $C_u = 1$  to 4. The sand filter media is underlaid by 150 mm of 19 mm clear stone containing a 100 mm dia., slotted drainage pipe discharging to a dosing pump chamber.

The dosing chamber has a minimum of 380 mm nominal dia. and a minimum of 900 mm effective depth. It is equipped with a minimum 0.5 HP effluent pump, level switches, alarms and control panel, discharging the effluent at controlled intervals.

This approval is only for the treatment unit component of the sewage system and **the sewage system shall comply with the Ontario Building Code, as amended from time to time.**

It is the responsibility of the Orenco Systems Inc. and/or its licensed agents to ensure that units meet all other applicable standards. Other standards may include those of the Canadian Standards Association, Ontario Ministry of Labour, Electrical Safety Authority, etc.

**Model ISF2828LL**

This Orenco Treatment Unit is designed for **daily design sanitary sewage flow of up to 3600 L**. The system requires a standard septic tank with minimum volume of 14 400 L, complete with an effluent filter on the outlet to screen out particles larger than 3 mm, overflowing to a pump chamber.

The pump chamber has a minimum nominal diameter of 380 mm and a minimum effective depth of 1200 mm. It is equipped with a minimum 0.5 HP effluent dosing pump, complete with level switches, alarm and control panel, discharging to a sand filter.

The sand filter has an area of 72.86 m<sup>2</sup>, is contained in a 30 mil PVC liner and it is designed to have a hydraulic loading rate no greater than 50 L/m<sup>2</sup>/day. It includes a pressure distribution manifold, with laterals of a minimum 25 mm dia. pressure pipe, centered at 600 mm. The pipes have 3 mm dia. orifices, centered at 600 mm. The pipes are covered with a 150 mm layer of 9 mm washed pea stone and with cold weather shields. The layer of stone is underlaid by 600 mm of high load filter media. The filter media conforms to the following sieve sizing: #3/8: 100% passing; #4: 95-100% passing; #8: 80-100% passing; #16: 45-85% passing; #30: 15-60% passing; #50: 3-10% passing; #100: 0-2% passing; #200: 0-1% passing with  $D_{10} = 0.3$  to 0.5 mm and  $C_u = 1$  to 4. The sand filter media is underlaid by 150 mm of 19 mm clear stone containing a 100 mm dia., slotted drainage pipe discharging to a dosing pump chamber.

The dosing chamber has a minimum of 380 mm nominal dia. and a minimum of 900 mm effective depth. It is equipped with a minimum 0.5 HP effluent pump, level switches, alarms and control panel, discharging the effluent at controlled intervals.

This approval is only for the treatment unit component of the sewage system and the sewage system shall comply with the Ontario Building Code, as amended from time to time.

It is the responsibility of the Orenco Systems Inc. and/or its licensed agents to ensure that units meet all other applicable standards. Other standards may include those of the Canadian Standards Association, Ontario Ministry of Labour, Electrical Safety Authority, etc.

## Recirculating Sand Filter Systems:

### Model RSF2010

This Orenco Treatment Unit is designed for **daily design sanitary sewage flow of up to 3800 L**. The system requires a standard septic tank with minimum volume of 11 400 L, complete with an effluent filter on the outlet to screen out particles larger than 3 mm, overflowing to a pump chamber.

The pump chamber has a minimum nominal diameter of 380 mm and a minimum effective depth of 1200 mm. It is equipped with a minimum 0.5 HP effluent dosing pump, complete with level switches, alarm and control panel, discharging to a recirculating tank.

The recirculating tank has a minimum volume of 3.8 m<sup>3</sup>, and includes a pump vault having a minimum of 380 mm dia. and a minimum of 1200 mm effective depth. It is equipped with a minimum 0.5 HP dosing pump complete with level switches, alarm and control panel, discharging effluent to a recirculating sand filter. It is also equipped with a recirculating splitter valve that discharges 20% of flow to a dosing tank and 80% of flow back to the recirculating tank. The tank is equipped with a physical filter to screen out solids larger than 3 mm.

The recirculating sand filter has an area of 9.5 m<sup>2</sup>, is contained in a 30 mil PVC liner and it is designed to have a hydraulic loading rate no greater than 200 L/m<sup>2</sup>/day. It includes a pressure distribution manifold, with laterals of a minimum 25 mm dia. pressure pipe, centered at 600 mm. The pipes have 3 mm dia. orifices, centered at 600 mm. The pipes are covered with a 150 mm layer of 9 mm washed pea stone and with cold weather shields. The layer of stone is underlaid by 600 mm of high load filter media. The filter media conforms to the following sieve sizing: #3/8: 100% passing; #4: 70-100% passing; #8: 5-78% passing; #16: 0-4% passing; #30: 0-2% passing; #50: 0-1% passing; #100: 0-1% passing; #200: 0-1% passing with  $D_{10} = 1.5$  to 2.5 mm and  $C_u = 1$  to 3. The sand filter media is underlaid by 150 mm of 19 mm clear stone containing a 100 mm dia., slotted drainage pipe discharging to a flow splitter valve in the recirculation tank.

The dosing tank has a minimum volume of 1.2 m<sup>3</sup>, and includes a pump vault having a minimum of 380 mm dia. and a minimum of 1200 mm effective depth. It is equipped with a minimum 0.5 HP effluent pump, level switches, alarms and control panel, discharging the effluent at controlled intervals. The tank is equipped with a physical filter to screen out solids larger than 3 mm.

This approval is only for the treatment unit component of the sewage system and the sewage system shall comply with the Ontario Building Code, as amended from time to time.

It is the responsibility of the Orenco Systems Inc. and/or its licensed agents to ensure that units meet all other applicable standards. Other standards may include those of the Canadian Standards Association, Ontario Ministry of Labour, Electrical Safety Authority, etc.

### **Model RSF1615**

This Orenco Treatment Unit is designed for **daily design sanitary sewage flow of up to 4500 L**. The system requires a standard septic tank with minimum volume of 13 500 L, complete with an effluent filter on the outlet to screen out particles larger than 3 mm, overflowing to a pump chamber.

The pump chamber has a minimum nominal diameter of 380 mm and a minimum effective depth of 1200 mm. It is equipped with a minimum 0.5 HP effluent dosing pump, complete with level switches, alarm and control panel, discharging to a recirculating tank.

The recirculating tank has a minimum volume of 4.5 m<sup>3</sup>, and includes a pump vault having a minimum of 380 mm dia. and a minimum of 1200 mm effective depth. It is equipped with a minimum 0.5 HP dosing pump complete with level switches, alarm and control panel, discharging effluent to a recirculating sand filter. It is also equipped with a recirculating splitter valve that discharges 20% of flow to a dosing tank and 80% of flow back to the recirculating tank. The tank is equipped with a physical filter to screen out solids larger than 3 mm.

The recirculating sand filter has an area of 11.25 m<sup>2</sup>, is contained in a 30 mil PVC liner and it is designed to have a hydraulic loading rate no greater than 200 L/m<sup>2</sup>/day. It includes a pressure distribution manifold, with laterals of a minimum 25 mm dia. pressure pipe, centered at 600 mm. The pipes have 3 mm dia. orifices, centered at 600 mm. The pipes are covered with a 150 mm layer of 9 mm washed pea stone and with cold weather shields. The layer of stone is underlaid by 600 mm of high load filter media. The filter media conforms to the following sieve sizing: #3/8: 100% passing; #4: 70-100% passing; #8: 5-78% passing; #16: 0-4% passing; #30: 0-2% passing; #50: 0-1% passing; #100: 0-1% passing; #200: 0-1% passing with  $D_{10} = 1.5$  to 2.5 mm and  $C_u = 1$  to 3. The sand filter media is underlaid by 150 mm of 19 mm clear stone containing a 100 mm dia., slotted drainage pipe discharging to a flow splitter valve in the recirculation tank.



The dosing tank has a minimum volume of 1.2 m<sup>3</sup>, and includes a pump vault having a minimum of 380 mm dia. and a minimum of 1200 mm effective depth. It is equipped with a minimum 0.5 HP effluent pump, level switches, alarms and control panel, discharging the effluent at controlled intervals. The tank is equipped with a physical filter to screen out solids larger than 3 mm.

This approval is only for the treatment unit component of the sewage system and **the sewage system shall comply with the Ontario Building Code, as amended from time to time.**

It is the responsibility of the Orenco Systems Inc. and/or its licensed agents to ensure that units meet all other applicable standards. Other standards may include those of the Canadian Standards Association, Ontario Ministry of Labour, Electrical Safety Authority, etc.

#### **Model RSF1818**

This Orenco Treatment Unit is designed for **daily design sanitary sewage flow of up to 5700 L.** The system requires a standard septic tank with minimum volume of 17 100 L, complete with an effluent filter on the outlet to screen out particles larger than 3 mm, overflowing to a pump chamber.

The pump chamber has a minimum nominal diameter of 380 mm and a minimum effective depth of 1200 mm. It is equipped with a minimum 0.5 HP effluent dosing pump, complete with level switches, alarm and control panel, discharging to a recirculating tank.

The recirculating tank has a minimum volume of 5.7 m<sup>3</sup>, and includes a pump vault having a minimum of 380 mm dia. and a minimum of 1200 mm effective depth. It is equipped with a minimum 0.5 HP dosing pump complete with level switches, alarm and control panel, discharging effluent to a recirculating sand filter. It is also equipped with a recirculating splitter valve that discharges 20% of flow to a dosing tank and 80% of flow back to the recirculating tank. The tank is equipped with a physical filter to screen out solids larger than 3 mm.

The recirculating sand filter has an area of  $14.5 \text{ m}^2$ , is contained in a 30 mil PVC liner and it is designed to have a hydraulic loading rate no greater than  $200 \text{ L/m}^2/\text{day}$ . It includes a pressure distribution manifold, with laterals of a minimum 25 mm dia. pressure pipe, centered at 600 mm. The pipes have 3 mm dia. orifices, centered at 600 mm. The pipes are covered with a 150 mm layer of 9 mm washed pea stone and with cold weather shields. The layer of stone is underlaid by 600 mm of high load filter media. The filter media conforms to the following sieve sizing: #3/8: 100% passing; #4: 70-100% passing; #8: 5-78% passing; #16: 0-4% passing; #30: 0-2% passing; #50: 0-1% passing; #100: 0-1% passing; #200: 0-1% passing with  $D_{10} = 1.5$  to  $2.5 \text{ mm}$  and  $C_u = 1$  to  $3$ . The sand filter media is underlaid by 150 mm of 19 mm clear stone containing a 100 mm dia., slotted drainage pipe discharging to a flow splitter valve in the recirculation tank.

The dosing tank has a minimum volume of  $2.0 \text{ m}^3$ , and includes a pump vault having a minimum of 380 mm dia. and a minimum of 1200 mm effective depth. It is equipped with a minimum 0.5 HP effluent pump, level switches, alarms and control panel, discharging the effluent at controlled intervals. The tank is equipped with a physical filter to screen out solids larger than 3 mm.

This approval is only for the treatment unit component of the sewage system and the sewage system shall comply with the Ontario Building Code, as amended from time to time.

It is the responsibility of the Orenco Systems Inc. and/or its licensed agents to ensure that units meet all other applicable standards. Other standards may include those of the Canadian Standards Association, Ontario Ministry of Labour, Electrical Safety Authority, etc.

### **Model RSF3210**

This Orenco Treatment Unit is designed for **daily design sanitary sewage flow of up to 6100 L**. The system requires a standard septic tank with minimum volume of 18 300 L, complete with an effluent filter on the outlet to screen out particles larger than 3 mm, overflowing to a pump chamber.

The pump chamber has a minimum nominal diameter of 380 mm and a minimum effective depth of 1200 mm. It is equipped with a minimum 0.5 HP effluent dosing pump, complete with level switches, alarm and control panel, discharging to a recirculating tank.

The recirculating tank has a minimum volume of  $6.1 \text{ m}^3$ , and includes a pump vault having a minimum of 380 mm dia. and a minimum of 1200 mm effective depth. It is equipped with a minimum 0.5 HP dosing pump complete with level switches, alarm and control panel, discharging effluent to a recirculating sand filter. It is also equipped with a recirculating splitter valve that discharges 20% of flow to a dosing tank and 80% of flow back to the recirculating tank. The tank is equipped with a physical filter to screen out solids larger than 3 mm.

The recirculating sand filter has an area of  $15.25 \text{ m}^2$ , is contained in a 30 mil PVC liner and it is designed to have a hydraulic loading rate no greater than  $200 \text{ L/m}^2/\text{day}$ . It includes a pressure distribution manifold, with laterals of a minimum 25 mm dia. pressure pipe, centered at 600 mm. The pipes have 3 mm dia. orifices, centered at 600 mm. The pipes are covered with a 150 mm layer of 9 mm washed pea stone and with cold weather shields. The layer of stone is underlaid by 600 mm of high load filter media. The filter media conforms to the following sieve sizing: #3/8: 100% passing; #4: 70-100% passing; #8: 5-78% passing; #16: 0-4% passing; #30: 0-2% passing; #50: 0-1% passing; #100: 0-1% passing; #200: 0-1% passing with  $D_{10} = 1.5$  to  $2.5 \text{ mm}$  and  $C_u = 1$  to  $3$ . The sand filter media is underlaid by 150 mm of 19 mm clear stone containing a 100 mm dia., slotted drainage pipe discharging to a flow splitter valve in the recirculation tank.

The dosing tank has a minimum volume of  $2.0 \text{ m}^3$ , and includes a pump vault having a minimum of 380 mm dia. and a minimum of 1200 mm effective depth. It is equipped with a minimum 0.5 HP effluent pump, level switches, alarms and control panel, discharging the effluent at controlled intervals. The tank is equipped with a physical filter to screen out solids larger than 3 mm.

This approval is only for the treatment unit component of the sewage system and **the sewage system shall comply with the Ontario Building Code, as amended from time to time.**

It is the responsibility of the Orenco Systems Inc. and/or its licensed agents to ensure that units meet all other applicable standards. Other standards may include those of the Canadian Standards Association, Ontario Ministry of Labour, Electrical Safety Authority, etc.

### Model RSF2018

This Orenco Treatment Unit is designed for **daily design sanitary sewage flow of up to 6800 L**. The system requires a standard septic tank with minimum volume of 20 400 L, complete with an effluent filter on the outlet to screen out particles larger than 3 mm, overflowing to a pump chamber.

The pump chamber has a minimum nominal diameter of 380 mm and a minimum effective depth of 1200 mm. It is equipped with a minimum 0.5 HP effluent dosing pump, complete with level switches, alarm and control panel, discharging to a recirculating tank.

The recirculating tank has a minimum volume of 6.8 m<sup>3</sup>, and includes a pump vault having a minimum of 380 mm dia. and a minimum of 1200 mm effective depth. It is equipped with a minimum 0.5 HP dosing pump complete with level switches, alarm and control panel, discharging effluent to a recirculating sand filter. It is also equipped with a recirculating splitter valve that discharges 20% of flow to a dosing tank and 80% of flow back to the recirculating tank. The tank is equipped with a physical filter to screen out solids larger than 3 mm.

The recirculating sand filter has an area of 17.0 m<sup>2</sup>, is contained in a 30 mil PVC liner and it is designed to have a hydraulic loading rate no greater than 200 L/m<sup>2</sup>/day. It includes a pressure distribution manifold, with laterals of a minimum 25 mm dia. pressure pipe, centered at 600 mm. The pipes have 3 mm dia. orifices, centered at 600 mm. The pipes are covered with a 150 mm layer of 9 mm washed pea stone and with cold weather shields. The layer of stone is underlaid by 600 mm of high load filter media. The filter media conforms to the following sieve sizing: #3/8: 100% passing; #4: 70-100% passing; #8: 5-78% passing; #16: 0-4% passing; #30: 0-2% passing; #50: 0-1% passing; #100: 0-1% passing; #200: 0-1% passing with  $D_{10} = 1.5$  to 2.5 mm and  $C_u = 1$  to 3. The sand filter media is underlaid by 150 mm of 19 mm clear stone containing a 100 mm dia., slotted drainage pipe discharging to a flow splitter valve in the recirculation tank.

The dosing tank has a minimum volume of 2.3 m<sup>3</sup>, and includes a pump vault having a minimum of 380 mm dia. and a minimum of 1200 mm effective depth. It is equipped with a minimum 0.5 HP effluent pump, level switches, alarms and control panel, discharging the effluent at controlled intervals. The tank is equipped with a physical filter to screen out solids larger than 3 mm.



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### **Model RSF2020**

This Orenco Treatment Unit is designed for **daily design sanitary sewage flow of up to 7600 L**. The system requires a standard septic tank with minimum volume of 22 800 L, complete with an effluent filter on the outlet to screen out particles larger than 3 mm, overflowing to a pump chamber.

The pump chamber has a minimum nominal diameter of 380 mm and a minimum effective depth of 1200 mm. It is equipped with a minimum 0.5 HP effluent dosing pump, complete with level switches, alarm and control panel, discharging to a recirculating tank.

The recirculating tank has a minimum volume of 7.6 m<sup>3</sup>, and includes a pump vault having a minimum of 380 mm dia. and a minimum of 1200 mm effective depth. It is equipped with a minimum 0.5 HP dosing pump complete with level switches, alarm and control panel, discharging effluent to a recirculating sand filter. It is also equipped with a recirculating splitter valve that discharges 20% of flow to a dosing tank and 80% of flow back to the recirculating tank. The tank is equipped with a physical filter to screen out solids larger than 3 mm.

The recirculating sand filter has an area of 19.0 m<sup>2</sup>, is contained in a 30 mil PVC liner and it is designed to have a hydraulic loading rate no greater than 200 L/m<sup>2</sup>/day. It includes a pressure distribution manifold, with laterals of a minimum 25 mm dia. pressure pipe, centered at 600 mm. The pipes have 3 mm dia. orifices, centered at 600 mm. The pipes are covered with a 150 mm layer of 9 mm washed pea stone and with cold weather shields. The layer of stone is underlaid by 600 mm of high load filter media. The filter media conforms to the following sieve sizing: #3/8: 100% passing; #4: 77-100% passing; #8: 5-78% passing; #16: 0-4% passing; #30: 0-2% passing; #50: 0-1% passing; #100: 0-1% passing; #200: 0-1% passing with D<sub>10</sub> = 1.5 to 2.5 mm and C<sub>u</sub> = 1 to 3. The sand filter media is underlaid by 150 mm of 19 mm clear stone containing a 100 mm dia., slotted drainage pipe discharging to a flow splitter valve in the recirculation tank.

The dosing tank has a minimum volume of 2.5 m<sup>3</sup>, and includes a pump vault having a minimum of 380 mm dia. and a minimum of 1200 mm effective depth. It is equipped with a minimum 0.5 HP effluent pump, level switches, alarms and control panel, discharging the effluent at controlled intervals. The tank is equipped with a physical filter to screen out solids larger than 3 mm.

This approval is only for the treatment unit component of the sewage system and **the sewage system shall comply with the Ontario Building Code, as amended from time to time.**

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#### **Model RSF2220**

This Orenco Treatment Unit is designed for **daily design sanitary sewage flow of up to 8300 L.** The system requires a standard septic tank with minimum volume of 25 000 L, complete with an effluent filter on the outlet to screen out particles larger than 3 mm, overflowing to a pump chamber.

The pump chamber has a minimum nominal diameter of 380 mm and a minimum effective depth of 1200 mm. It is equipped with a minimum 0.5 HP effluent dosing pump, complete with level switches, alarm and control panel, discharging to a recirculating tank.

The recirculating tank has a minimum volume of 8.3 m<sup>3</sup>, and includes a pump vault having a minimum of 380 mm dia. and a minimum of 1200 mm effective depth. It is equipped with a minimum 0.5 HP dosing pump complete with level switches, alarm and control panel, discharging effluent to a recirculating sand filter. It is also equipped with a recirculating splitter valve that discharges 20% of flow to a dosing tank and 80% of flow back to the recirculating tank. The tank is equipped with a physical filter to screen out solids larger than 3 mm.



The recirculating sand filter has an area of  $20.75 \text{ m}^2$ , is contained in a 30 mil PVC liner and it is designed to have a hydraulic loading rate no greater than  $200 \text{ L/m}^2/\text{day}$ . It includes a pressure distribution manifold, with laterals of a minimum 25 mm dia. pressure pipe, centered at 600 mm. The pipes have 3 mm dia. orifices, centered at 600 mm. The pipes are covered with a 150 mm layer of 9 mm washed pea stone and with cold weather shields. The layer of stone is underlaid by 600 mm of high load filter media. The filter media conforms to the following sieve sizing: #3/8: 100% passing; #4: 77-100% passing; #8: 5-78% passing; #16: 0-4% passing; #30: 0-2% passing; #50: 0-1% passing; #100: 0-1% passing; #200: 0-1% passing with  $D_{10} = 1.5$  to  $2.5 \text{ mm}$  and  $C_u = 1$  to  $3$ . The sand filter media is underlaid by 150 mm of 19 mm clear stone containing a 100 mm dia., slotted drainage pipe discharging to a flow splitter valve in the recirculation tank.

The dosing tank has a minimum volume of  $8.3 \text{ m}^3$ , and includes a pump vault having a minimum of 380 mm dia. and a minimum of 1200 mm effective depth. It is equipped with a minimum 0.5 HP effluent pump, level switches, alarms and control panel, discharging the effluent at controlled intervals. The tank is equipped with a physical filter to screen out solids larger than 3 mm.

This approval is only for the treatment unit component of the sewage system and **the sewage system shall comply with the Ontario Building Code, as amended from time to time.**

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#### **Model RSF2420**

This Orenco Treatment Unit is designed for **daily design sanitary sewage flow of up to 9100 L**. The system requires a standard septic tank with minimum volume of 27 300 L, complete with an effluent filter on the outlet to screen out particles larger than 3 mm, overflowing to a pump chamber.

The pump chamber has a minimum nominal diameter of 380 mm and a minimum effective depth of 1200 mm. It is equipped with a minimum 0.5 HP effluent dosing pump, complete with level switches, alarm and control panel, discharging to a recirculating tank.

The recirculating tank has a minimum volume of  $9.1 \text{ m}^3$ , and includes a pump vault having a minimum of 380 mm dia. and a minimum of 1200 mm effective depth. It is equipped with a minimum 0.5 HP dosing pump complete with level switches, alarm and control panel, discharging effluent to a recirculating sand filter. It is also equipped with a recirculating splitter valve that discharges 20% of flow to a dosing tank and 80% of flow back to the recirculating tank. The tank is equipped with a physical filter to screen out solids larger than 3 mm.

The recirculating sand filter has an area of  $22.75 \text{ m}^2$ , is contained in a 30 mil PVC liner and it is designed to have a hydraulic loading rate no greater than  $200 \text{ L/m}^2/\text{day}$ . It includes a pressure distribution manifold, with laterals of a minimum 25 mm dia. pressure pipe, centered at 600 mm. The pipes have 3 mm dia. orifices, centered at 600 mm. The pipes are covered with a 150 mm layer of 9 mm washed pea stone and with cold weather shields. The layer of stone is underlaid by 600 mm of high load filter media. The filter media conforms to the following sieve sizing: #3/8: 100% passing; #4: 70-100% passing; #8: 5-78% passing; #16: 0-4% passing; #30: 0-2% passing; #50: 0-1% passing; #100: 0-1% passing; #200: 0-1% passing with  $D_{10} = 1.5$  to  $2.5 \text{ mm}$  and  $C_u = 1$  to  $3$ . The sand filter media is underlaid by 150 mm of 19 mm clear stone containing a 100 mm dia., slotted drainage pipe discharging to a flow splitter valve in the recirculation tank.

The dosing tank has a minimum volume of  $9.1 \text{ m}^3$ , and includes a pump vault having a minimum of 380 mm dia. and a minimum of 1200 mm effective depth. It is equipped with a minimum 0.5 HP effluent pump, level switches, alarms and control panel, discharging the effluent at controlled intervals. The tank is equipped with a physical filter to screen out solids larger than 3 mm.

This approval is only for the treatment unit component of the sewage system and **the sewage system shall comply with the Ontario Building Code, as amended from time to time.**

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### Model RSF3216

This Orenco Treatment Unit is designed for **daily design sanitary sewage flow of up to 9700 L**. The system requires a standard septic tank with minimum volume of 29 100 L, complete with an effluent filter on the outlet to screen out particles larger than 3 mm, overflowing to a pump chamber.

The pump chamber has a minimum nominal diameter of 380 mm and a minimum effective depth of 1200 mm. It is equipped with a minimum 0.5 HP effluent dosing pump, complete with level switches, alarm and control panel, discharging to a recirculating tank.

The recirculating tank has a minimum volume of  $9.7 \text{ m}^3$ , and includes a pump vault having a minimum of 380 mm dia. and a minimum of 1200 mm effective depth. It is equipped with a minimum 0.5 HP dosing pump complete with level switches, alarm and control panel, discharging effluent to a recirculating sand filter. It is also equipped with a recirculating splitter valve that discharges 20% of flow to a dosing tank and 80% of flow back to the recirculating tank. The tank is equipped with a physical filter to screen out solids larger than 3 mm.

The recirculating sand filter has an area of  $24.25 \text{ m}^2$ , is contained in a 30 mil PVC liner and it is designed to have a hydraulic loading rate no greater than  $200 \text{ L/m}^2/\text{day}$ . It includes a pressure distribution manifold, with laterals of a minimum 25 mm dia. pressure pipe, centered at 600 mm. The pipes have 3 mm dia. orifices, centered at 600 mm. The pipes are covered with a 150 mm layer of 9 mm washed pea stone and with cold weather shields. The layer of stone is underlaid by 600 mm of high load filter media. The filter media conforms to the following sieve sizing: #3/8: 100% passing; #4: 70-100% passing; #8: 5-78% passing; #16: 0-4% passing; #30: 0-2% passing; #50: 0-1% passing; #100: 0-1% passing; #200: 0-1% passing with  $D_{10} = 1.5$  to  $2.5 \text{ mm}$  and  $C_u = 1$  to  $3$ . The sand filter media is underlaid by 150 mm of 19 mm clear stone containing a 100 mm dia., slotted drainage pipe discharging to a flow splitter valve in the recirculation tank.

The dosing tank has a minimum volume of  $9.7 \text{ m}^3$ , and includes a pump vault having a minimum of 380 mm dia. and a minimum of 1200 mm effective depth. It is equipped with a minimum 0.5 HP effluent pump, level switches, alarms and control panel, discharging the effluent at controlled intervals. The tank is equipped with a physical filter to screen out solids larger than 3 mm.

This approval is only for the treatment unit component of the sewage system and the sewage system shall comply with the Ontario Building Code, as amended from time to time.

It is the responsibility of the Orenco Systems Inc. and/or its licensed agents to ensure that units meet all other applicable standards. Other standards may include those of the Canadian Standards Association, Ontario Ministry of Labour, Electrical Safety Authority, etc.

## Waterloo Biofilter Treatment Systems

### Models 11 to 100

These Waterloo Biofilter Treatment Units are designed for **daily design sanitary sewage flow of up to 10 000 L**. Each treatment unit requires a standard septic tank with minimum volume determined from Table 3, complete with an effluent filter on the outlet to screen out particles larger than 5 mm, overflowing to a pump chamber.

The minimum nominal diameter and minimum effective depth (or minimum volume) of the pump chamber is determined from Table 3. The pump chamber is equipped with a minimum 0.3 HP effluent pump, complete with level switches, alarm and control panel, discharging to a Waterloo Biofilter Treatment Unit.

The Waterloo Biofilter Treatment Unit consists of an enclosure containing the Waterloo Biofilter polyurethane filter medium, a distribution system to evenly distribute the septic tank effluent on the top of the filter medium, and an optional ventilation fan. The minimum volume of the medium for each model are shown in Table 3. The treatment enclosure incorporates a distribution system designed such that the effluent is dosed at a rate that does not exceed 9 L per m<sup>3</sup> of the filter medium per dose.

The effluent from the treatment unit is pumped from the treatment enclosure or from a separate pump chamber by means of an effluent dosing pump with a minimum of 0.3 HP, or higher to satisfy the pressure head requirements of the shallow buried trench system, with level switches, alarm and control panel. The pump re-circulates approximately 50% of the effluent to the septic tank and discharges approximately 50% of the effluent to a shallow buried trench.

### Models 11a to 100a

These treatment units are the same as "Models 11 to 100", except that the treatment enclosures are located above ground. These systems also include a second pump chamber, following the Waterloo Biofilter treatment unit, with a minimum effective volume of 100% of the daily design sanitary sewage flow. It is equipped with a minimum 0.3 HP effluent pump, complete with level switches, alarm and control panel. The pump re-circulates approximately 50% of the effluent to the septic tank and discharges approximately 50% of the effluent to a shallow buried trench.

This approval is only for the treatment unit component of the sewage system and the sewage system shall comply with the Ontario Building Code, as amended from time to time.

It is the responsibility of Waterloo Biofilter Treatment Systems and/or its licensed agents to ensure that units meet all other applicable standards. Other standards may include those of the Canadian Standards Association, Ontario Ministry of Labour, Electric Safety Authority, etc.

**Table 3**

Models	Daily Design Flow, (L)	Minimum Septic Tank Capacity, (L)	Minimum Pump Chamber Dimensions diameter x depth, (mm) or Volume, (L)	Minimum Volume of Biofilter Medium, (m <sup>3</sup> )
11	1100	3600	500 x 1200	1.5
16	1600	3600	600 x 1500	3.0
20	2000	4500	600 x 1500	3.0
25	2500	5000	600 x 1500	3.6
30	3000	6000	600 x 1500	4.2
35	3500	7000	Volume = 2700	5.1
40	4000	8000	Volume = 2700	6.1
45	4500	9000	Volume = 3600	7.1
50	5000	10 000	Volume = 3600	8.1
55	5500	11 000	Volume = 3600	8.9
60	6000	12 000	Volume = 4500	9.7
65	6500	13 000	Volume = 4500	10.5
70	7000	14 000	Volume = 5400	11.3
75	7500	15 000	Volume = 5400	12.1
80	8000	16 000	Volume = 6800	13.0
85	8500	17 000	Volume = 6800	13.8
90	9000	18 000	Volume = 6800	14.6
95	9500	19 000	Volume = 9100	15.4
100	10 000	20 000	Volume = 9100	16.2



## **Clearstream Treatment Systems**

### **Model 500N**

This Clearstream Treatment Unit is designed for **daily design sanitary sewage flow of 850 L to 1900 L**. It consists of a septic tank with a minimum volume of 2.7 m<sup>3</sup> complete with an effluent filter on the outlet of the tank to screen out solids larger than 5 mm, overflowing to a Clearstream Treatment Unit with a total volumetric capacity of 2.99 m<sup>3</sup>, complete with an aeration tank equipped with two fine bubble diffusers and an air pump rated at 1.13 L/s together with an inner conical up welling clarifier equipped with surge control weir overflowing to a single pass free access sand filter.

Where the percolation rate of the native subsoil is between 50 min/cm and 125 min/cm, the treatment unit shall also include a single pass free access sand filter (model NPSCS-10), or a 100 micron spin filter model number 1100. The sand filter consists of a fibreglass tank complete with wood plank covers, 100 mm dia. distribution piping, 5.03 m<sup>2</sup> area at 600 mm depth, filtration sand media (1.0 mm dia. to 2.0 mm dia. with 1.5 uniformity coefficient), 150 mm pea gravel layer and 100 mm dia. slotted collection piping discharging the effluent by gravity to a dosing pump chamber. The dosing pump chamber shall have a volumetric capacity of 4.7 m<sup>3</sup> equipped with a minimum 0.3 HP submersible effluent pump complete with level switches, alarm and control panel together with a forcemain discharging the effluent.

This approval is only for the treatment unit component of the sewage system and **the sewage system shall comply with the Ontario Building Code, as amended from time to time.**

It is the responsibility of Northern Purification Systems (823077 Ontario Inc.) and/or its licensed agents to ensure that units meet all other applicable standards. Other standards may include those of the Canadian Standards Association, Ontario Ministry of Labour, Electrical Safety Authority, etc.

### Model 600N

This Clearstream Treatment Unit is designed for **daily design sanitary sewage flow of 1900 L to 2280 L**. It consists of a septic tank with a minimum volume of  $2.7 \text{ m}^3$  complete with an effluent filter on the outlet of the tank to screen out solids larger than 5 mm, overflowing to a Clearstream Treatment Unit with a total volumetric capacity of  $3.52 \text{ m}^3$ , complete with an aeration tank equipped with two fine bubble diffusers and an air pump rated at 1.13 L/s together with an inner conical up welling clarifier equipped with surge control weir overflowing to a single pass free access sand filter.

Where the percolation rate of the native subsoil is between 50 min/cm and 125 min/cm, the treatment unit shall also include a single pass free access sand filter (model NPSCS-10), or a 100 micron spin filter model number 1100. The sand filter consists of a fibreglass tank complete with wood planks covers, 100 mm dia. distribution piping,  $5.03 \text{ m}^2$  area at 600 mm depth, filtration sand media (1.0 mm dia. to 2.0 mm dia. with 1.5 uniformity coefficient), 150 mm pea gravel layer and 100 mm dia. slotted collection piping discharging the effluent by gravity to a dosing pump chamber. The dosing pump chamber shall have a volumetric capacity of  $4.7 \text{ m}^3$  equipped with a minimum 0.3 HP submersible effluent pump complete with level switches, alarm and control panel together with a forcemain discharging the effluent.

This approval is only for the treatment unit component of the sewage system and **the sewage system shall comply with the Ontario Building Code, as amended from time to time.**

It is the responsibility of Northern Purification Systems (823077 Ontario Inc.) and/or its licensed agents to ensure that units meet all other applicable standards. Other standards may include those of the Canadian Standards Association, Ontario Ministry of Labour, Electrical Safety Authority, etc.

**Model 750N**

This Clearstream Treatment Unit is designed for **daily design sanitary sewage flow of 2280 L to 2850 L**. It consists of a septic tank with a minimum volume of 2.7 m<sup>3</sup> complete with an effluent filter on the outlet of the tank to screen out solids larger than 5 mm, overflowing to a Clearstream Treatment Unit with a total volumetric capacity of 4.5 m<sup>3</sup>, complete with an aeration tank equipped with two fine bubble diffusers and an air pump rated at 1.7 L/s together with an inner conical up welling clarifier equipped with surge control weir overflowing to a single pass free access sand filter.

Where the percolation rate of the native subsoil is between 50 min/cm and 125 min/cm, the treatment unit shall also include a single pass free access sand filter (model NPSCS-20), or a 100 micron spin filter model number 1100. The sand filter consists of a fibreglass tank complete with wood plank covers, 100 mm dia. distribution piping, 6.51 m<sup>2</sup> area at 600 mm depth, filtration sand media (1.0 mm dia. to 2.0 mm dia. with 1.5 uniformity coefficient), 150 mm pea gravel layer and 100 mm dia. slotted collection piping discharging the effluent by gravity to a dosing pump chamber. The dosing pump chamber shall have a volumetric capacity of 4.7 m<sup>3</sup> equipped with a minimum 0.3 HP submersible effluent pump complete with level switches, alarm and control panel together with a forcemain discharging the effluent.

This approval is only for the treatment unit component of the sewage system and **the sewage system shall comply with the Ontario Building Code, as amended from time to time.**

It is the responsibility of Northern Purification Systems (823077 Ontario Inc.) and/or its licensed agents to ensure that units meet all other applicable standards. Other standards may include those of the Canadian Standards Association, Ontario Ministry of Labour, Electrical Safety Authority, etc.

**Model 1000N**

This Clearstream Treatment Unit is designed for **daily design sanitary sewage flow of 2850 L to 3800 L**. It consists of a septic tank with a minimum volume of  $3.4 \text{ m}^3$  complete with an effluent filter on the outlet of the tank to screen out solids larger than 5 mm, overflowing to a Clearstream Treatment Unit with a total volumetric capacity of  $6.5 \text{ m}^3$ , complete with an aeration tank equipped with two fine bubble diffusers and an air pump rated at 2.26 L/s together with an inner conical up welling clarifier equipped with surge control weir overflowing to a single pass free access sand filter.

Where the percolation rate of the native subsoil is between 50 min/cm and 125 min/cm, the treatment unit shall also include two single pass free access sand filters (model NPSCS-10), or a 100 micron spin filter model number 1100. The sand filters consist of a fibreglass tank complete with wood planks covers, 100 mm dia. distribution piping,  $6.51 \text{ m}^2$  area at 600 mm depth, filtration sand media (1.0 mm dia. to 2.0 mm dia. with 1.5 uniformity coefficient), 150 mm pea gravel layer and 100 mm dia. slotted collection piping discharging the effluent by gravity to a dosing pump chamber. The dosing pump chamber shall have a volumetric capacity of  $6.8 \text{ m}^3$  equipped with a minimum 0.5 HP submersible effluent pump complete with level switches, alarm and control panel together with a forcemain discharging the effluent.

This approval is only for the treatment unit component of the sewage system and **the sewage system shall comply with the Ontario Building Code, as amended from time to time.**

It is the responsibility of Northern Purification Systems (823077 Ontario Inc.) and/or its licensed agents to ensure that units meet all other applicable standards. Other standards may include those of the Canadian Standards Association, Ontario Ministry of Labour, Electrical Safety Authority, etc.

**Model 1500N**

This Clearstream Treatment Unit is designed for **daily design sanitary sewage flow of 3800 L to 5700 L**. It consists of a septic tank with a minimum volume of 4.5 m<sup>3</sup> complete with an effluent filter on the outlet of the tank to screen out solids larger than 5 mm, overflowing to a Clearstream Treatment Unit with a total volumetric capacity of 9.5 m<sup>3</sup>, complete with an aeration tank equipped with two fine bubble diffusers and an air pump rated at 3.4 L/s together with an inner conical up welling clarifier equipped with surge control weir overflowing to a single pass free access sand filter.

Where the percolation rate of the native subsoil is between 50 min/cm and 125 min/cm, the treatment unit shall also include two single pass free access sand filters (model NPSCS-10), or a 100 micron spin filter model number 1100. The sand filters consist of a fibreglass tank complete with wood planks covers, 100 mm dia. distribution piping, 6.51 m<sup>2</sup> area at 600 mm depth, filtration sand media (1.0 mm dia. to 2.0 mm dia. with 1.5 uniformity coefficient), 150 mm pea gravel layer and 100 mm dia. slotted collection piping discharging the effluent by gravity to a dosing pump chamber. The dosing pump chamber shall have a volumetric capacity of 10.08 m<sup>3</sup> equipped with a minimum 0.5 HP submersible effluent pump complete with level switches, alarm and control panel together with a forcemain discharging the effluent.

This approval is only for the treatment unit component of the sewage system and **the sewage system shall comply with the Ontario Building Code, as amended from time to time.**

It is the responsibility of Northern Purification Systems (823077 Ontario Inc.) and/or its licensed agents to ensure that units meet all other applicable standards. Other standards may include those of the Canadian Standards Association, Ontario Ministry of Labour, Electrical Safety Authority, etc.

## **Ecoflo® Biofilter Treatment Systems**

### **Model Ecoflo® ST-500-PF Biofilter & Model Ecoflo® STB-500-PF Biofilter**

This Ecoflo Biofilter Treatment Unit is designed for **daily design sanitary sewage flow of 850 L to 1500 L**. The system requires a standard septic tank complete with an effluent filter on the outlet to screen out particles larger than 1.6 mm, overflowing to a pump chamber.

The pump chamber has a minimum effective holding capacity of one time the daily design flow, equipped with a minimum 0.3 HP Ecopump, Model SP180 or equivalent effluent pump, complete with level switches, alarm and control panel. The pump chamber has a minimum 38 mm dia. discharge pipe, ball valve and a flow controller model RE-96 or equivalent, terminating in an Ecoflo® ST-500 Biofilter unit.

The Ecoflo® ST-650 Biofilter unit consists of a compact high-performance peat-based biofilter medium confined in a fiberglass shell. It is placed on a minimum of 200 mm thick layer of crushed stone (15 to 50 mm dia.) or gravel. A collecting device under the Biofilter directs the treated effluent through a 100 mm dia. pipe to a dosing chamber.

The dosing chamber has a minimum effective volume of half of the daily design flow and is equipped with a minimum 0.3 HP Ecopump, Model SP-180 or equivalent effluent pump, activated by a conventional on/off float or by a control panel. The dosing chamber is controlled by an alarm float installed in the chamber and is connected to an alarm panel placed inside the building on an independent electrical circuit. The effluent from the dosing tank is discharged to a shallow buried trench.

This approval is only for the treatment unit component of the sewage system and **the sewage system shall comply with the Ontario Building Code, as amended from time to time.**

It is the responsibility of Ecoflo Ontario and/or its licensed agents to ensure that units meet all other applicable standards. Other standards may include those of the Canadian Standards Association, Ontario Ministry of Labour, Electrical Safety Authority, etc.

### **Model Ecoflo® ST-500-GF Biofilter & Model Ecoflo® STB-500-GF Biofilter**

This Ecoflo Biofilter Treatment Unit is designed for **daily design sanitary sewage flow of 850 L to 1500 L**. The system requires a standard septic tank complete with an effluent filter on the outlet to screen out particles larger than 1.6 mm, overflowing to a pump chamber.

The Ecoflo® ST-500 Biofilter unit consists of a compact high-performance peat-based biofilter medium confined in a fiberglass shell. It is placed on a minimum of 200 mm thick layer of crushed stone (15 to 50 mm dia.) or gravel. A collecting device under the Biofilter directs the treated effluent through a 100 mm dia. pipe to a dosing chamber.

The dosing chamber has a minimum effective volume of half of the daily design flow and is equipped with a minimum 0.3 HP Ecopump, Model SP-180 or equivalent effluent pump, activated by a conventional on/off float or by a control panel. The dosing chamber is controlled by an alarm float installed in the chamber and is connected to an alarm panel placed inside the building on an independent electrical circuit. The effluent from the dosing tank is discharged to a shallow buried trench.

This approval is only for the treatment unit component of the sewage system and **the sewage system shall comply with the Ontario Building Code, as amended from time to time.**

It is the responsibility of Ecoflo Ontario and/or its licensed agents to ensure that units meet all other applicable standards. Other standards may include those of the Canadian Standards Association, Ontario Ministry of Labour, Electrical Safety Authority, etc.

**Model Ecoflo® ST-650-PF Biofilter & Model Ecoflo® STB-650-PF Biofilter**

This Ecoflo Biofilter Treatment Unit is designed for **daily design sanitary sewage flow of 850 L to 2500 L**. The system requires a standard septic tank complete with an effluent filter on the outlet to screen out particles larger than 1.6 mm, overflowing to a pump chamber.

The pump chamber has a minimum effective holding capacity of one time the daily design flow, equipped with a minimum 0.3 HP Ecopump, Model SP180 or equivalent effluent pump, complete with level switches, alarm and control panel. The pump chamber has a minimum 38 mm dia. discharge pipe, ball valve and a flow controller model RE-96 or equivalent, terminating in an Ecoflo® ST-650 Biofilter unit.

The Ecoflo® ST-650 Biofilter unit consists of a compact high-performance peat-based biofilter medium confined in a fiberglass shell. It is placed on a minimum of 200 mm thick layer of crushed stone (15 to 50 mm dia.) or gravel. A collecting device under the Biofilter directs the treated effluent through a 100 mm dia. pipe to a dosing chamber.

The dosing chamber has a minimum effective volume of half of the daily design flow and is equipped with a minimum 0.3 HP Ecopump, Model SP-180 or equivalent effluent pump, activated by a conventional on/off float or by a control panel. The dosing chamber is controlled by an alarm float installed in the chamber and is connected to an alarm panel placed inside the building on an independent electrical circuit. The effluent from the dosing tank is discharged to a shallow buried trench.

This approval is only for the treatment unit component of the sewage system and **the sewage system shall comply with the Ontario Building Code, as amended from time to time.**

It is the responsibility of Ecoflo Ontario and/or its licensed agents to ensure that units meet all other applicable standards. Other standards may include those of the Canadian Standards Association, Ontario Ministry of Labour, Electrical Safety Authority, etc.



**Model Ecoflo® ST-650-GF Biofilter & Model Ecoflo® STB-650-GF Biofilter**

This Ecoflo Biofilter Treatment Unit is designed for **daily design sanitary sewage flow of 850 L to 2500 L**. The system requires a standard septic tank complete with an effluent filter on the outlet to screen out particles larger than 1.6 mm, overflowing to an Ecoflo® ST-650 Biofilter unit.

The Ecoflo® ST-650 Biofilter unit consists of a compact high-performance peat-based biofilter medium confined in a fiberglass shell. It is placed on a minimum of 200 mm thick layer of crushed stone (15 to 50 mm dia.) or gravel. A collecting device under the Biofilter directs the treated effluent through a 100 mm dia. pipe to a dosing chamber.

The dosing chamber has a minimum effective volume of half of the daily design flow and is equipped with a minimum 0.3 HP Ecopump, Model SP-180 or equivalent effluent pump, activated by a conventional on/off float or by a control panel. The dosing chamber is controlled by an alarm float installed in the chamber and is connected to an alarm panel placed inside the building on an independent electrical circuit. The effluent from the dosing tank is discharged to a shallow buried trench.

This approval is only for the treatment unit component of the sewage system and **the sewage system shall comply with the Ontario Building Code, as amended from time to time.**

It is the responsibility of Ecoflo Ontario and/or its licensed agents to ensure that units meet all other applicable standards. Other standards may include those of the Canadian Standards Association, Ontario Ministry of Labour, Electrical Safety Authority, etc.

**Model Ecoflo® ST-500 MCRI-PF Biofilter & Model Ecoflo® STB-500 MCRI-PF Biofilter**

This Ecoflo Biofilter Treatment Unit is designed for **daily design sanitary sewage flow of 1500 L to 10 000 L**. The system requires a standard septic tank complete with an effluent filter on the outlet to screen out particles larger than 0.8 mm, overflowing to a pump chamber.

The pump chamber has a minimum effective holding capacity of one time the daily design flow, equipped with a minimum 0.5 HP Ecopump, Model SP 280 or equivalent effluent pump, complete with level switches, alarm and control panel. The pump chamber has a minimum 38 mm dia. discharge pipe connected to a Flow Splitter, Model RL-296, discharging through 100 mm dia. distribution pipes to a cluster of Ecoflo® ST-650 Biofilter units.

The Ecoflo® ST-650 Biofilter units in the cluster consist of a compact high-performance peat-based biofilter medium confined in a fiberglass shell. The units are placed on a minimum of 200 mm thick layer of crushed stone (15 to 50 mm dia.) or gravel. A collecting device under the Biofilters directs the treated effluent through a 100 mm dia. pipe to a dosing chamber.

The dosing chamber has a minimum effective volume of half of the daily design flow and is equipped with a minimum 0.5 HP Ecopump, Model SP-280 or equivalent effluent pump, activated by a conventional on/off float or by a control panel. The dosing chamber is controlled by an alarm float installed in the chamber and is connected to an alarm panel placed inside the building on an independent electrical circuit. The effluent from the dosing tank is discharged to a shallow buried trench.

This approval is only for the treatment unit component of the sewage system and **the sewage system shall comply with the Ontario Building Code, as amended from time to time.**

It is the responsibility of Ecoflo Ontario and/or its licensed agents to ensure that units meet all other applicable standards. Other standards may include those of the Canadian Standards Association, Ontario Ministry of Labour, Electrical Safety Authority, etc.

**Model Ecoflo® ST-650 MCRI-PF Biofilter & Model Ecoflo® STB-650 MCRI-PF Biofilter**

This Ecoflo Biofilter Treatment Unit is designed for **daily design sanitary sewage flow of 2000 L to 10 000 L**. The system requires a standard septic tank complete with an effluent filter on the outlet to screen out particles larger than 0.8 mm, overflowing to a pump chamber.

The pump chamber has a minimum effective holding capacity of one time the daily design flow, equipped with a minimum 0.5 HP Ecopump, Model SP 280 or equivalent effluent pump, complete with level switches, alarm and control panel. The pump chamber has a minimum 38 mm dia. discharge pipe connected to a Flow Splitter, Model RL-296, discharging through 100 mm dia. distribution pipes to a cluster of Ecoflo® ST-650 Biofilter units.

The Ecoflo® ST-650 Biofilter units in the cluster consist of a compact high-performance peat-based biofilter medium confined in a fiberglass shell. The units are placed on a minimum of 200 mm thick layer of crushed stone (15 to 50 mm dia.) or gravel. A collecting device under the Biofilters directs the treated effluent through a 100 mm dia. pipe to a dosing chamber.

The dosing chamber has a minimum effective volume of half of the daily design flow and is equipped with a minimum 0.5 HP Ecopump, Model SP-280 or equivalent effluent pump, activated by a conventional on/off float or by a control panel. The dosing chamber is controlled by an alarm float installed in the chamber and is connected to an alarm panel placed inside the building on an independent electrical circuit. The effluent from the dosing tank is discharged to a shallow buried trench.

This approval is only for the treatment unit component of the sewage system and **the sewage system shall comply with the Ontario Building Code, as amended from time to time.**

It is the responsibility of Ecoflo Ontario and/or its licensed agents to ensure that units meet all other applicable standards. Other standards may include those of the Canadian Standards Association, Ontario Ministry of Labour, Electrical Safety Authority, etc.

## Whitewater Treatment Systems

### Model DF 50 FF

This Whitewater Treatment Unit is designed for **daily design sanitary sewage flow of 850 L to 1900 L**. It consists of a treatment unit with a total volumetric capacity of  $3.46 \text{ m}^3$ , including a  $2.4 \text{ m}^3$  volume aeration tank equipped with an air diffusion system and an air pump rated at  $0.86 \text{ L/s}$ . It also includes a  $1.04 \text{ m}^3$  volume inner conical up welling clarifier overflowing to a dosing pump chamber or a sand filter.

Where the percolation rate of the native subsoil is between  $50 \text{ min/cm}$  and  $125 \text{ min/cm}$ , the treatment unit shall include a single pass free access sand filter or a 100 micron vortex spin filter model AP4E-100. The sand filter consists of a tank with two access openings and 100 mm distribution piping. The filter media has an area of  $4.75 \text{ m}^2$  at 600 mm depth (1.8 mm to 2.44 mm dia. effective size with 1.5 uniformity coefficient), underlaid by 150 mm of pea gravel. The filter also includes 100 mm dia. perforated collection piping that discharges the effluent, by gravity, to a dosing pump chamber.

The dosing pump chamber has volumetric capacity of  $3.3 \text{ m}^3$  and is equipped with a minimum 0.3 HP submersible effluent pump, complete with level switches, alarm and control panel and a forcemain discharging the effluent.

This approval is only for the treatment unit component of the sewage system and **the sewage system shall comply with the Ontario Building Code, as amended from time to time.**

It is the responsibility of Canwest Tanks & Ecological Systems Ltd. and/or its licensed agents to ensure that units meet all other applicable standards. Other standards may include those of the Canadian Standards Association, Ontario Ministry of Labour, Electrical Safety Authority, etc.

### **Model DF 60 FF**

This Whitewater Treatment Unit is designed for **daily design sanitary sewage flow of 1900 L to 2300 L**. It consists of a treatment unit with a total volumetric capacity of  $4.33 \text{ m}^3$ , including a  $3.2 \text{ m}^3$  volume aeration tank equipped with an air diffusion system and an air pump rated at 1.03 L/s. It also includes a  $1.13 \text{ m}^3$  volume inner conical up welling clarifier overflowing to a dosing pump chamber or a sand filter.

Where the percolation rate of the native subsoil is between 50 min/cm and 125 min/cm, the treatment unit shall include a single pass free access sand filter or a 100 micron vortex spin filter model AP4E. The sand filter consists of a tank with two access openings and 100 mm distribution piping. The filter media has an area of  $5.75 \text{ m}^2$  at 600 mm depth (1.8 mm to 2.4 mm dia. effective size with 1.5 uniformity coefficient), underlaid by 150 mm of pea gravel. The filter also includes 100 mm dia. perforated collection piping that discharges the effluent, by gravity, to a dosing pump chamber.

The dosing pump chamber has volumetric capacity of  $4.03 \text{ m}^3$  and is equipped with a minimum 0.3 HP submersible effluent pump, complete with level switches, alarm and control panel and a forcemain discharging the effluent.

This approval is only for the treatment unit component of the sewage system and **the sewage system shall comply with the Ontario Building Code, as amended from time to time.**

It is the responsibility of Canwest Tanks & Ecological Systems Ltd. and/or its licensed agents to ensure that units meet all other applicable standards. Other standards may include those of the Canadian Standards Association, Ontario Ministry of Labour, Electrical Safety Authority, etc.

### **Model DF 75 FF**

This Whitewater Treatment Unit is designed for **daily design sanitary sewage flow of 2300 L to 2900 L**. It consists of a treatment unit with a total volumetric capacity of  $5.43 \text{ m}^3$ , including a  $3.8 \text{ m}^3$  volume aeration tank equipped with an air diffusion system and an air pump rated at 1.29 L/s. It also includes a  $1.6 \text{ m}^3$  volume inner conical up welling clarifier overflowing to a dosing pump chamber or a sand filter.

Where the percolation rate of the native subsoil is between 50 min/cm and 125 min/cm, the treatment unit shall include a single pass free access sand filter or a 100 micron vortex spin filter model AP4E. The sand filter consists of a tank with two access openings and 100 mm distribution piping. The filter media has an area of  $7.25 \text{ m}^2$  at 600 mm depth (1.8 mm to 2.4 mm dia. effective size with 1.5 uniformity coefficient), underlaid by 150 mm of pea gravel. The filter also includes 100 mm dia. perforated collection piping that discharges the effluent, by gravity, to a dosing pump chamber.

The dosing pump chamber has volumetric capacity of  $5.1 \text{ m}^3$  and is equipped with a minimum 0.4 HP submersible effluent pump, complete with level switches, alarm and control panel and a forcemain discharging the effluent.

This approval is only for the treatment unit component of the sewage system and the sewage system shall comply with the Ontario Building Code, as amended from time to time.

It is the responsibility of Canwest Tanks & Ecological Systems Ltd. and/or its licensed agents to ensure that units meet all other applicable standards. Other standards may include those of the Canadian Standards Association, Ontario Ministry of Labour, Electrical Safety Authority, etc.

#### **Model DF 100 FF**

This Whitewater Treatment Unit is designed for **daily design sanitary sewage flow of 2900 L to 3800 L**. It consists of a treatment unit with a total volumetric capacity of  $7.28 \text{ m}^3$ , including a  $5.4 \text{ m}^3$  volume aeration tank equipped with an air diffusion system and an air pump rated at 1.72 L/s. It also includes a  $1.85 \text{ m}^3$  volume inner conical up welling clarifier overflowing to a dosing pump chamber or a sand filter.

Where the percolation rate of the native subsoil is between 50 min/cm and 125 min/cm, the treatment unit shall include a single pass free access sand filter or a 100 micron vortex spin filter model AP4E. The sand filter consists of a tank with two access openings and 100 mm distribution piping. The filter media has an area of  $9.54 \text{ m}^2$  at 600 mm depth (1.8 mm to 2.4 mm dia. effective size with 1.5 uniformity coefficient), underlaid by 150 mm of pea gravel. The filter also includes 100 mm dia. perforated collection piping that discharges the effluent, by gravity, to a dosing pump chamber.

The dosing pump chamber has volumetric capacity of  $6.7 \text{ m}^3$  and is equipped with a minimum 0.4 HP submersible effluent pump, complete with level switches, alarm and control panel and a forcemain discharging the effluent.

This approval is only for the treatment unit component of the sewage system and **the sewage system shall comply with the Ontario Building Code, as amended from time to time.**

It is the responsibility of Canwest Tanks & Ecological Systems Ltd. and/or its licensed agents to ensure that units meet all other applicable standards. Other standards may include those of the Canadian Standards Association, Ontario Ministry of Labour, Electrical Safety Authority, etc.

### **Model DF 150 FF**

This Whitewater Treatment Unit is designed for **daily design sanitary sewage flow of 3800 L to 5700 L**. It consists of a treatment unit with a total volumetric capacity of  $10.89 \text{ m}^3$ , including a  $8.0 \text{ m}^3$  volume aeration tank equipped with an air diffusion system and an air pump rated at 2.58 L/s. It also includes a  $2.86 \text{ m}^3$  volume inner conical up welling clarifier overflowing to a dosing pump chamber or a sand filter.

Where the percolation rate of the native subsoil is between 50 min/cm and 125 min/cm, the treatment unit shall include a single pass free access sand filter or a 100 micron vortex spin filter model AP4E. The sand filter consists of a tank with two access openings and 100 mm distribution piping. The filter media has an area of  $14.25 \text{ m}^2$  at 600 mm depth (1.8 mm to 2.4 mm dia, effective size with 1.5 uniformity coefficient), underlaid by 150 mm of pea gravel. The filter also includes 100 mm dia. perforated collection piping that discharges the effluent, by gravity, to a dosing pump chamber.

The dosing pump chamber has volumetric capacity of  $6.7 \text{ m}^3$  and is equipped with a minimum 0.4 HP submersible effluent pump, complete with level switches, alarm and control panel and a forcemain discharging the effluent.

This approval is only for the treatment unit component of the sewage system and **the sewage system shall comply with the Ontario Building Code, as amended from time to time.**

It is the responsibility of Canwest Tanks & Ecological Systems Ltd. and/or its licensed agents to ensure that units meet all other applicable standards. Other standards may include those of the Canadian Standards Association, Ontario Ministry of Labour, Electrical Safety Authority, etc.

### **Model DF 150X2 FF**

This Whitewater Treatment Unit is designed for **daily design sanitary sewage flow of 5700 L to 10 000 L**. It consists of a 5.5 m<sup>3</sup> volume trash collector tank with inlet and outlet baffles discharging, through a self adjusting flow equalizing distribution box, to two "Model DF 150 FF" Whitewater treatment units. The effluent from treatment unit overflows to a dosing pump chamber or a sand filter.

Where the percolation rate of the native subsoil is between 50 min/cm and 125 min/cm, the treatment unit shall include a single pass free access sand filter or a 100 micron vortex spin filter model AP4E. The sand filter consists of a tank with two access openings and 100 mm distribution piping. The filter media has an area of 25 m<sup>2</sup> at 600 mm depth (1.8 mm to 2.4 mm dia. effective size with 1.5 uniformity coefficient), underlaid by 150 mm of pea gravel. The filter also includes 100 mm dia. perforated collection piping that discharges the effluent, by gravity, to a dosing pump chamber.

The dosing pump chamber has volumetric capacity of 17.5 m<sup>3</sup> and is equipped with a minimum 0.5 HP submersible effluent pump, complete with level switches, alarm and control panel and a forcemain discharging the effluent.

This approval is only for the treatment unit component of the sewage system and **the sewage system shall comply with the Ontario Building Code, as amended from time to time.**

It is the responsibility of Canwest Tanks & Ecological Systems Ltd. and/or its licensed agents to ensure that units meet all other applicable standards. Other standards may include those of the Canadian Standards Association, Ontario Ministry of Labour, Electrical Safety Authority, etc.





## Biocycle Aerated Wastewater System

### Model 5800-10

This Biocycle Treatment Unit is designed for **daily design sanitary sewage flow of 850 L to 2000L**. It consists of a treatment unit with a total volumetric capacity of  $8.21 \text{ m}^3$  and operating volume of  $5.4 \text{ m}^3$ , complete with a  $2.4 \text{ m}^3$  baffled primary anaerobic chamber; a  $2.57 \text{ m}^3$  aeration tank equipped with fixed growth media; an air diffusion system; an air pump rated at 1.33 L/s; and a  $0.44 \text{ m}^3$  inner conical clarifier equipped with sludge return piping.

Where the percolation rate of the native subsoil is between 50 min/cm and 125 min/cm, the treatment unit shall also include a  $0.65 \text{ m}^3$  inner pump chamber equipped with a 250 mm dia. pressure sand filter containing 600 mm depth sand media (0.45 mm to 0.55 mm dia. effective size with 1.6 uniformity coefficient); a pump rated at 0.38 L/s with associated piping and valves, level switches, alarm and control panel, discharging effluent through the pressure sand filter to a dosing chamber.

The dosing pump chamber has volumetric capacity of  $3.0 \text{ m}^3$  and is equipped with a filter backwash pump, rated at 0.38 L/s, and associated piping and valves; a minimum 0.3 HP submersible field dosing pump complete with level switches, alarm and control panel and a forcemain discharging the effluent.

This approval is only for the treatment unit component of the sewage system and **the sewage system shall comply with the Ontario Building Code, as amended from time to time.**

It is the responsibility of Canadian Biocycle Ltd and/or its licensed agents to ensure that units meet all other applicable standards. Other standards may include those of the Canadian Standards Association, Ontario Ministry of Labour, Electrical Safety Authority, etc.

## Rotordisk Wastewater System

### Model S-12

The Model S-12 ROTORDISK as manufactured by CMS Group Inc. or its licensed manufacturers is designed for **daily design sanitary sewage flow of up to 2000 L** of domestic wastewater. The treatment unit is self contained in a 2.425 m<sup>3</sup> fiberglass or concrete tank that is divided into three compartments. The primary settling chamber has a capacity of 1.395 m<sup>3</sup>, the final settling chamber has a capacity of 0.62 m<sup>3</sup> and the biological contactor zone that house the ROTORDISK has a capacity of 0.41 m<sup>3</sup>. The biological contactor zone is located between the primary and final chambers. The ROTORDISK contains at least three packs of high density polyethylene disks that have a total surface area of 67 m<sup>2</sup>. The disks are partially submerged in the wastewater and are rotated by a small 1/4 HP electric motor. The effluent from the final chamber flows to a single pass free access sand filter or to a dosing pump chamber.

Where the percolation rate of the native subsoil is between 50 min/cm and 125 min/cm, the treatment unit shall include a single pass free access sand filter consisting of a tank equipped with openings accessible from grade, sand filter and 100 mm dia. distribution piping. The sand filter has an area of 4.5 m<sup>2</sup> and a depth of 450 mm (sand media with 1 mm to 1.5 mm dia effective size with 1.5 uniformity coefficient); 150 mm bottom layer of pea gravel and 100 mm underdrain pipes discharging the effluent by gravity to an effluent dosing chamber.

The dosing pump chamber consists of a precast concrete effluent chamber with 3.5 m<sup>3</sup> volumetric capacity, a minimum 1/3 HP effluent pump, level switches, alarms and control panel and a forcemain discharging the effluent.

This approval is only for the treatment unit component of the sewage system and **the sewage system shall comply with the Ontario Building Code, as amended from time to time.**

It is the responsibility of CMS Group Inc. and/or its licensed agents to ensure that units meet all other applicable standards. Other Standards may include those of the Canadian Standards Association, Ontario Ministry of Labour, Electric Safety Authority, and others.

## **FAST® Wastewater Treatment Systems**

### **Model: MicroFAST® 0.5**

This FAST® wastewater treatment system is designed for a **daily design sanitary sewage flow up to 1900 L**. The FAST® treatment system consists of a two-chamber concrete or fiberglass tank or two separate concrete or fiberglass tanks with the first chamber/tank being a settling chamber having a working volume not less than 1300 L and not more than 1900 L. The second chamber/tank will have a working volume not less than 1700 L. A single, two-chamber tank has the first chamber consisting of a service access hatch, baffled inlet and a 150 mm diameter crossover connection to the second chamber. A two-tank arrangement has the first tank with a service access hatch and a 100 mm diameter baffled sanitary tee connection. The second chamber/tank consists of a service access, vent and inspection ports and the FAST® insert module as supplied by Bio-Microbics, Inc.

The second chamber/tank contains the FAST® insert module by either the lid suspension or the leg support method with at least 250 mm clearance from the tank bottom to the FAST® insert module. The FAST® insert module consists of an airlift arrangement and is equipped with a plastic surge control bio-filter media sized and designed for this model with an outlet clarifier baffle. The airlift is operated with a 1/3 HP, 110/115 Volt Single Phase external blower. The effluent from the second chamber is discharged to a single pass free access sand filter or to a dosing chamber.

Where the percolation time of the native soil is between 50 min/cm and 125 min/cm, the treatment unit shall include a single pass free access sand filter or GAG Sim/Tech 100 micron, pressure filter model number STF-100 and STF-100AZ, or a 100 micron vortex filter. The sand filter consists of a tank equipped with openings accessible from grade, 100 mm distribution piping, sand filter with an area of 3.4 m<sup>2</sup> and a depth of 450 mm (sand media with 0.4 mm to 1.5 mm dia. effective size with a uniformity coefficient of 3); 150 mm pea gravel layer and 100 mm dia. slotted collection piping discharging the effluent by gravity to an effluent dosing chamber.

The dosing chamber consists of a precast concrete effluent pump chamber with 3.4 m<sup>3</sup> volumetric capacity, a minimum of 0.3 HP submersible pump, level switches, alarms and control panel and a forcemain discharging the effluent.

This approval is only for the treatment unit component of the sewage system and the sewage system shall comply with the Ontario Building Code, as amended from time to time.

It is the responsibility of Bio-Microbics Inc. and/or its licensed agents to ensure that units meet all other applicable standards. Other Standards may include those of the Canadian Standards Association, Ontario Ministry of Labour, Electrical Safety Authority, and others.

**Model: MicroFAST® 0.75**

This FAST® wastewater treatment system is designed for a **daily design sanitary sewage flow up to 2850 L**. The FAST® treatment system consists of a two-chamber concrete, or fiberglass tank or two separate concrete or fiberglass tanks and having a working volume of not less than 1900 L and not more than 2850 L. The second chamber/tank will have a working volume not less than 2850 L. A single, two-chamber tank has the first chamber consisting of a service access hatch, baffled inlet and a 150 mm diameter crossover connection to the second chamber. A two-tank arrangement has the first tank with a service access hatch and a 100 mm diameter baffled sanitary tee connection. The second chamber/tank consists of a service access, vent and inspection ports and the FAST® insert module as supplied by Bio-Microbics, Inc.

The second chamber/tank contains the FAST® insert module by either the lid suspension or the leg support method with at least 250 mm clearance from the tank bottom to the FAST® insert module. The FAST® insert module consists of an airlift arrangement and is quipped with a plastic surge control bio-filter media sized and designed for this model, with an outlet clarifier baffle. The airlift is operated with a 1/3 HP, 110/115 Volt Single Phase external blower. The effluent from the second chamber is discharged to a single pass free access sand filter or to a dosing chamber.

Where the percolation time of the native soil is between 50 min/cm and 125 min/cm, the treatment unit shall include a single pass free access sand filter or GAG Sim/Tech 100 micron, pressure filter model number STF-100 and STF-100AZ, or a 100 micron vortex filter. The sand filter consists of a tank equipped with openings accessible from grade, 100 mm distribution piping, sand filter with an area of 5.1 m<sup>2</sup> and a depth of 450 mm (sand media with 0.4 mm to 1.5 mm dia. effective size with a uniformity coefficient of 3); 150 mm pea gravel layer and 100 mm dia. slotted collection piping discharging the effluent by gravity to an effluent dosing chamber.

The dosing chamber consists of a precast concrete effluent pump chamber with 5 m<sup>3</sup> volumetric capacity, a minimum of 0.3 HP submersible pump, level switches, alarms and control panel and a forcemain discharging the effluent.

This approval is only for the treatment unit component of the sewage system and **the sewage system shall comply with the Ontario Building Code, as amended from time to time.**

It is the responsibility of Bio-Microbics Inc. and/or its licensed agents to ensure that units meet all other applicable standards. Other Standards may include those of the Canadian Standards Association, Ontario Ministry of Labour, Electrical Safety Authority, and others.

**Model: MicroFAST® 0.9**

This FAST® wastewater treatment system is designed for a **daily design sanitary sewage flow up to 3400 L**. The FAST® treatment system consists of a two-chamber concrete or fiberglass tank or two separate concrete or fiberglass tanks with the first chamber/tank being a settling chamber and having a working volume not less than 1900 L and not more than 3400 L. The second chamber/tank will have a working volume not less than 2850 L. A single, two-chamber tank has the first chamber consisting of a service access hatch, baffled inlet and a 150 mm diameter crossover connection to the second chamber. A two-tank arrangement has the first tank with a service access hatch and a 100 mm diameter baffled sanitary tee connection. The second tank consists of a service access, vent and inspection ports and the FAST® insert module as supplied by Bio-Microbics Inc.

The second chamber/tank contains the FAST® insert module by either the lid suspension or the leg support method with at least 250 mm clearance from the tank bottom to the FAST® insert module. The FAST® insert module consists of an airlift arrangement and is equipped with a plastic surge control bio-filter media designed for residential strength wastewater and designed with an outlet clarifier baffle. The airlift is operated with a 1/3 HP, 110/115 Volt Single Phase external blower. The effluent from the second chamber is discharged to a single pass free access sand filter or to a dosing chamber.

Where the percolation time of the native soil is between 50 min/cm and 125 min/cm, the treatment unit shall include a single pass free access sand filter or GAG Sim/Tech 100 micron, pressure filter model number STF-100 and STF-100AZ, or a 100 micron vortex filter. The sand filter consists of a tank equipped with openings accessible from grade, 100 mm distribution piping, sand filter with an area of 6.8 m<sup>2</sup> and a depth of 450 mm (sand media with 0.4 mm to 1.5 mm dia. effective size with a uniformity coefficient of 3); 150 mm pea gravel layer and 100 mm dia. slotted collection piping discharging the effluent by gravity to an effluent dosing chamber.

The dosing chamber consists of a precast concrete effluent pump chamber with 6 m<sup>3</sup> volumetric capacity, a minimum of 0.3 HP submersible pump, level switches, alarms and control panel and a forcemain discharging the effluent.

This approval is only for the treatment unit component of the sewage system and the sewage system shall comply with the Ontario Building Code, as amended from time to time.

It is the responsibility of Bio-Microbics Inc. and/or its licensed agents to ensure that units meet all other applicable standards. Other Standards may include those of the Canadian Standards Association, Ontario Ministry of Labour, Electrical Safety Authority, and others.

#### **Model: MicroFAST® 1.5**

This FAST® wastewater treatment system is designed for a **daily design sanitary sewage flow up to 5700 L**. The FAST® treatment system consists of a two-chamber tank or two separate tanks with the first chamber/tank being a settling chamber and having a working volume not less than 2850 L but not more than 5700 L. The second chamber/tank will have a working volume not less than 4300 L. A single, two-chamber tank has the first chamber consisting of a service access hatch, baffled inlet and a 150 mm diameter crossover connection to the second chamber. A two-tank arrangement has the first tank with a service access hatch and a 100 mm diameter baffled sanitary tee connection. The second tank consists of a service access, vent and inspection ports and the FAST® insert module as supplied by Bio-Microbics, Inc.

The second chamber/tank contains the FAST® insert module by either the lid suspension or the leg support method with at least 250 mm clearance from the tank bottom to the FAST® insert module. The FAST® insert module consists of an airlift arrangement and is equipped with a plastic surge control bio-filter media sized and designed for this model with an outlet clarifier baffle. The airlift is operated with a ½ to ¾ HP, 110/115 Volt Single Phase external blower. The effluent from the second chamber is discharged to a single pass free access sand filter or to a dosing chamber.

Where the percolation time of the native soil is between 50 min/cm and 125 min/cm, the treatment unit shall include a single pass free access sand filter or GAG Sim/Tech 100 micron, pressure filter model number STF-100 and STF-100AZ, or a 100 micron vortex filter. The sand filter consists of a tank equipped with openings accessible from grade, 100 mm distribution piping, sand filter with an area of 6.8 m<sup>2</sup> and a depth of 450 mm (sand media with 0.4 mm to 1.5 mm dia. effective size with a uniformity coefficient of 3); 150 mm pea gravel layer and 100 mm dia. slotted collection piping discharging the effluent by gravity to an effluent dosing chamber.

The dosing chamber consists of a precast concrete effluent pump chamber with 6.7 m<sup>3</sup> volumetric capacity, a minimum of 0.3 HP submersible pump, level switches, alarms and control panel and a forcemain discharging the effluent.

This approval is only for the treatment unit component of the sewage and the sewage system shall comply with the **Ontario Building Code**, as amended from time to time.

It is the responsibility of Bio-Microbics Inc. and/or its licensed agents to ensure that units meet all other applicable standards. Other Standards may include those of the Canadian Standards Association, Ontario Ministry of Labour, Electrical Safety Authority, and others.

## **Aquarobic Treatment Systems**

### **Model MicroMini-28**

This Aquarobic Treatment Unit is designed for a **daily design sanitary sewage flow of 750 L to 2800 L**. It consists of a treatment unit in a concrete, fiberglass, or plastic single chamber tank, sized at 3 times the daily required volume. The treatment unit discharges the effluent to a dosing pump chamber or a sand filter.

The treatment unit consists of a .33 HP air blower, 6 Aquarobic air diffusers; a 0.5 HP side intake stainless steel effluent pump; a 50 micron spin filter; 3 level sensors. All components are accessible through a vented fiberglass manway and controlled by an Aquarobic factory built control panel.

The dosing chamber is either precast concrete, fiberglass, or plastic sized at 1.5 times the daily required volume. The chamber is equipped with submersible effluent pump (minimum 0.3 HP), level sensor float, high level sensor alarm, control panel and a forcemain discharging the effluent.

Where the percolation rate of the native subsoil is between 50 min/cm and 125 min/cm, the treatment unit shall include a single pass free access sand filter consisting of a tank with two access openings, 100 mm distribution piping, sand filter with an area of 5 m<sup>2</sup> and a depth of 450 mm (sand media with 0.4 mm to 1.5 mm dia. effective size with 3 uniformity coefficient); 150 mm of pea gravel layer and 100 mm dia. perforated collection piping discharging the effluent by gravity to the dosing pump chamber.

This approval is only for the treatment unit component of the sewage system and **the sewage system shall comply with the Ontario Building Code, as amended from time to time.**

It is the responsibility of Aquarobic Canada and/or its agents to ensure that units meet all other applicable standards. Other standards may include those of the Canadian Standards Association, Ontario Ministry of Labour, Electrical Safety Authority, etc.





### Model MicroMini-45

This Aquarobic Treatment Unit is designed for **daily design sanitary sewage flow of 2800 L to 4500 L**. It consists of a treatment unit in a concrete, fiberglass, or plastic single chamber tank, sized at 3 times the daily required volume. The treatment unit discharges the effluent to a dosing pump chamber or a sand filter.

This treatment unit consists of a .5 HP air blower, 8 Aquarobic air diffusers; a 0.75 HP side intake stainless steel effluent pump; a 50 micron spin filter; 3 level sensors. All components are accessible through a vented fiberglass manway and controlled by an Aquarobic factory built control panel.

The dosing chamber is either precast concrete, fiberglass, or plastic sized at 1.5 times the daily required volume. The chamber is equipped with submersible effluent pump (minimum 0.3 HP), level sensor float, high level sensor alarm, control panel and a forcemain discharging the effluent.

Where the percolation rate of the native subsoil is between 50 min/cm and 125 min/cm, the treatment unit shall include a single pass free access sand filter consisting of a tank with two access openings, 100 mm distribution piping, sand filter with an area of 11 m<sup>2</sup> and a depth of 450 mm (sand media with 0.4 mm to 1.5 mm dia. effective size with 3 uniformity coefficient); 150 mm of pea gravel layer and 100 mm dia. perforated collection piping discharging the effluent by gravity to the dosing pump chamber.

This approval is only for the treatment unit component of the sewage system and **the sewage system shall comply with the Ontario Building Code, as amended from time to time.**

It is the responsibility of Aquarobic Canada and/or its agents to ensure that units meet all other applicable standards. Other standards may include those of the Canadian Standards Association, Ontario Ministry of Labour, Electrical Safety Authority, etc.

### Model MiniPlant-70

This Aquarobic Treatment Unit is designed for a **daily design sanitary sewage flow of 4500 L to 7000 L**. It consists of a treatment unit in a concrete, fiberglass, or plastic single chamber tank, sized at 3 times the daily required volume. The treatment unit discharges the effluent to a dosing pump chamber or a sand filter.

This treatment unit consists of a 1 HP air blower, 10 Aquarobic air diffusers; a 1 HP side intake stainless steel effluent pump; a 50 micron spin filter; 3 level sensors. All components are accessible through a vented fiberglass manway and controlled by an Aquarobic factory built control panel.

The dosing chamber is either precast concrete, fiberglass, or plastic sized at 1.5 times the daily required volume. The chamber is equipped with submersible effluent pump (minimum 0.3 HP), level sensor float, high level sensor alarm, control panel and a forcemain discharging the effluent.

Where the percolation rate of the native subsoil is between 50 min/cm and 125 min/cm, the treatment unit shall include a single pass free access sand filter consisting of a tank with two access openings, 100 mm distribution piping, sand filter with an area of 18 m<sup>2</sup> and a depth of 450 mm (sand media with 0.4 mm to 1.5 mm dia. effective size with 3 uniformity coefficient); 150 mm of pea gravel layer and 100 mm dia. perforated collection piping discharging the effluent by gravity to the dosing pump chamber.

This approval is only for the treatment unit component of the sewage system and **the sewage system shall comply with the Ontario Building Code, as amended from time to time.**

It is the responsibility of Aquarobic Canada and/or its agents to ensure that units meet all other applicable standards. Other standards may include those of the Canadian Standards Association, Ontario Ministry of Labour, Electrical Safety Authority, etc.

**Model MiniPlant-85**

This Aquarobic Treatment Unit is designed for **daily design sanitary sewage flow of 7000 L to 8500 L**. It consists of a treatment unit in a concrete, fiberglass, or plastic single chamber tank, sized at 3 times the daily required volume. The treatment unit discharges the effluent to a dosing pump chamber or a sand filter.

This treatment unit consists of a 1.5 HP air blower, 12 Aquarobic air diffusers; a 1 HP side intake stainless steel effluent pump; a 50 micron spin filter; 3 level sensors. All components are accessible through a vented fiberglass manway and controlled by an Aquarobic factory built control panel.

The dosing chamber is either precast concrete, fiberglass, or plastic sized at 1.5 times the daily required volume. The chamber is equipped with submersible effluent pump (minimum 0.3 HP), level sensor float, high level sensor alarm, control panel and a forcemain discharging the effluent.

Where the percolation rate of the native subsoil is between 50 min/cm and 125 min/cm, the treatment unit shall include a single pass free access sand filter consisting of a tank with two access openings, 100 mm distribution piping, sand filter with an area of 21 m<sup>2</sup> and a depth of 450 mm (sand media with 0.4 mm to 1.5 mm dia. effective size with 3 uniformity coefficient); 150 mm of pea gravel layer and 100 mm dia. perforated collection piping discharging the effluent by gravity to the dosing pump chamber.

This approval is only for the treatment unit component of the sewage system **and the sewage system shall comply with the Ontario Building Code, as amended from time to time.**

It is the responsibility of Aquarobic Canada and/or its agents to ensure that units meet all other applicable standards. Other standards may include those of the Canadian Standards Association, Ontario Ministry of Labour, Electrical Safety Authority, etc.

## Nayadic Wastewater Treatment Systems

### Model M6A

This Nayadic Wastewater Treatment Unit is designed for a **daily design sanitary sewage flow of up to 1900 L**. It consists of a 3600 L pre-treatment septic tank, Nayadic M6A treatment unit with a total volumetric capacity of 2.27 m<sup>3</sup>, including an integral aeration tank equipped with a diaphragm air diffuser and a 1/4 HP air pump. It also includes an inner conical up welling clarifier overflowing 360-degree weir to a dosing pump chamber.

Where the percolation rate of the native subsoil is between 50 min/cm and 125 min/cm, the treatment unit shall include a 1.5 in SpinClean filter with max. 100 micron mesh screen, or a single pass free access sand filter consisting of a tank with openings accessible from grade, 100 mm distribution piping, sand filter with an area of 4.65 m<sup>2</sup> at 600 mm depth (sand media with 0.4 mm to 1.5 mm dia. effective size with uniformity coefficient of 3), underlaid by 150 mm pea gravel and 100 mm dia. slotted collection piping discharging the effluent by gravity to a dosing chamber.

The dosing pump chamber has a volumetric capacity of min 3.3 m<sup>3</sup> and is equipped with a minimum 0.4 HP submersible effluent pump complete with pressure activated level switches, alarm and control panel, and a forcemain discharging the effluent at controlled intervals.

This approval is only for the treatment unit component of the sewage system and the sewage system shall comply with the Ontario Building Code, as amended from time to time.

It is the responsibility of the Consolidated Treatment System Inc., and/or its licensed agents to ensure that units meet all other applicable standards. Other standards may include those of the Canadian Standards Association, Ontario Ministry of Labour, Electric Safety Authority, etc.



### Model M8A

This Nayadic Wastewater Treatment Unit is designed for a **daily design sanitary sewage flow of up to 2300 L**. It consists of a 3600 L pre-treatment septic tank, Nayadic M8A treatment unit with a total volumetric capacity of 3.03 m<sup>3</sup>, including an integral aeration tank equipped with a diaphragm air diffuser and a ¼ HP air pump. It also includes an inner conical up welling clarifier overflowing 360-degree weir to a dosing pump chamber.

Where the percolation rate of the native subsoil is between 50 min/cm and 125 min/cm, the treatment unit shall include a 1.5 in SpinClean filter with max. 100 micron mesh screen, or a single pass free access sand filter consisting of a tank with openings accessible from grade, 100 mm distribution piping, sand filter with an area of 5.57 m<sup>2</sup> at 600 mm depth (sand media with 0.4 mm to 1.5 mm dia. effective size with uniformity coefficient of 3), underlaid by 150 mm pea gravel and 100 mm dia. slotted collection piping discharging the effluent by gravity to a dosing chamber.

The dosing pump chamber has a volumetric capacity of 4 m<sup>3</sup> and is equipped with a minimum 0.4 HP submersible effluent pump complete with pressure activated level switches, alarm and control panel, a 1.5 in SpinClean filter with max. 100 micron mesh screen and a forcemain discharging the effluent at controlled intervals.

This approval is only for the treatment unit component of the sewage system and **the sewage system shall comply with the Ontario Building Code, as amended from time to time.**

It is the responsibility of the Consolidated Treatment System Inc., and/or its licensed agents to ensure that units meet all other applicable standards. Other standards may include those of the Canadian Standards Association, Ontario Ministry of Labour, Electric Safety Authority, etc.

### Model M1050A

This Nayadic Wastewater Treatment Unit is designed for a **daily design sanitary sewage flow of up to 3000 L**. It consists of a 4500 L pre-treatment septic tank, Nayadic M1050A treatment unit with a total volumetric capacity of 4.54 m<sup>3</sup>, including an integral aeration tank equipped with a diaphragm air diffuser and a 1/2 HP air pump. It also includes an inner conical up welling clarifier overflowing 360-degree weir to a dosing pump chamber.

Where the percolation rate of the native subsoil is between 50 min/cm and 125 min/cm, the treatment unit shall include a 1.5 in SpinClean filter with max. 100 micron mesh screen, or a single pass free access sand filter consisting of a tank with openings accessible from grade, 100 mm distribution piping, sand filter with an area of 6.95 m<sup>2</sup> at 600 mm depth (sand media with 0.4 mm to 1.5 mm dia. effective size with uniformity coefficient of 3), underlaid by 150 mm pea gravel and 100 mm dia. slotted collection piping discharging the effluent by gravity to a dosing chamber.

The dosing pump chamber has a volumetric capacity of 5.3 m<sup>3</sup> and is equipped with a minimum 0.4 HP submersible effluent pump complete with pressure activated level switches, alarm and control panel, a 1.5 in SpinClean filter with max. 100 micron mesh screen and a forcemain discharging the effluent at controlled intervals.

This approval is only for the treatment unit component of the sewage system and **the sewage system shall comply with the Ontario Building Code, as amended from time to time.**

It is the responsibility of the Consolidated Treatment System Inc., and/or its licensed agents to ensure that units meet all other applicable standards. Other standards may include those of the Canadian Standards Association, Ontario Ministry of Labour, Electric Safety Authority, etc.

**Model M1200A**

This Nayadic Wastewater Treatment Unit is designed for a **daily design sanitary sewage flow of up to 3800 L**. It consists of a 4500 L pre-treatment septic tank, Nayadic M1200A treatment unit with a total volumetric capacity of 3.97 m<sup>3</sup>, including an integral aeration tank equipped with a diaphragm air diffuser and a 1/3 HP air pump. It also includes an inner conical up welling clarifier overflowing 360-degree weir to a dosing pump chamber.

Where the percolation rate of the native subsoil is between 50 min/cm and 125 min/cm, the treatment unit shall include a 1.5 in SpinClean filter with max. 100 micron mesh screen, or a single pass free access sand filter consisting of a tank with openings accessible from grade, 100 mm distribution piping, sand filter with an area of 9.29 m<sup>2</sup> at 600 mm depth (sand media with 0.4 mm to 1.5 mm dia effective size with uniformity coefficient of 3), underlaid by 150 mm pea gravel and 100 mm dia. slotted collection piping discharging the effluent by gravity to a dosing chamber.

The dosing pump chamber has a volumetric capacity of 6.65 m<sup>3</sup> and is equipped with a minimum 0.4 HP submersible effluent pump complete with pressure activated level switches, alarm and control panel, a 1.5 in SpinClean filter with max. 100 micron mesh screen and a forcemain discharging the effluent at controlled intervals.

This approval is only for the treatment unit component of the sewage system and **the sewage system shall comply with the Ontario Building Code, as amended from time to time.**

It is the responsibility of the Consolidated Treatment System Inc., and/or its licensed agents to ensure that units meet all other applicable standards. Other standards may include those of the Canadian Standards Association, Ontario Ministry of Labour, Electric Safety Authority, etc.

### Model M2000A

This Nayadic Wastewater Treatment Unit is designed for a **daily design sanitary sewage flow of up to 5700 L**. It consists of a 7000 L pre-treatment septic tank, Nayadic M2000A treatment unit with a total volumetric capacity of 7.57 m<sup>3</sup>, including an integral aeration tank equipped with a diaphragm air diffuser and a ½ HP air pump. It also includes an inner conical up welling clarifier overflowing 360-degree weir to a dosing pump chamber.

Where the percolation rate of the native subsoil is between 50 min/cm and 125 min/cm, the treatment unit shall include a 1.5 in SpinClean filter with max. 100 micron mesh screen, or a single pass free access sand filter consisting of a tank with openings accessible from grade, 100 mm distribution piping, sand filter with an area of 13.94 m<sup>2</sup> at 600 mm depth (sand media with 0.4 mm to 1.5 mm dia effective size with uniformity coefficient of 3), underlaid by 150 mm pea gravel and 100 mm dia. slotted collection piping discharging the effluent by gravity to a dosing chamber.

The dosing pump chamber has a volumetric capacity of 9.9 m<sup>3</sup> and is equipped with a minimum 0.4 HP submersible effluent pump complete with pressure activated level switches, alarm and control panel, a 1.5 in SpinClean filter with max. 100 micron mesh screen and a forcemain discharging the effluent at controlled intervals.

This approval is only for the treatment unit component of the sewage system and **the sewage system shall comply with the Ontario Building Code, as amended from time to time.**

It is the responsibility of the Consolidated Treatment System Inc., and/or its licensed agents to ensure that units meet all other applicable standards. Other standards may include those of the Canadian Standards Association, Ontario Ministry of Labour, Electric Safety Authority, etc.



## **Bionest™ Treatment Systems**

### **Model BN-400**

This Bionest Treatment System is designed for **daily design sanitary sewage flow up to 1600 L**. The system requires a standard two-compartment septic tank with a volumetric capacity of 3.8 m<sup>3</sup> or greater with an effluent filter on the outlet to screen out particles larger than 1.6 mm, overflowing to the Bionest bioreactor through a 100 mm diameter pipe.

The Bionest bioreactor is comprised of a tank with a volumetric capacity of 3.8 m<sup>3</sup> of similar configuration to that of the standard two-compartment septic tank. A specific quantity of Bionest synthetic media is placed into each of the two-compartment. The media is non-toxic polymer ribbon having a relative density of 1.04. Continuous aeration of the first compartment of the bioreactor is provided by a linear air pump and fine bubble air diffusers. A recirculation pump is installed in the last compartment of the bioreactor and part of the treated effluent is returned to the septic tank. The treated effluent is directed through a 100 mm diameter pipe to a dosing chamber.

The dosing chamber has a minimum effective volume of 0.75 of the daily design flow and is equipped with a minimum 0.3 HP pump, activated by a conventional on/off float or by a control panel. The dosing chamber is monitored by an alarm float installed in the chamber and is connected to an alarm panel placed inside the building on an independent electrical circuit. The effluent from the dosing tank is discharged to a shallow buried trench.

This approval is only for the treatment unit component of the sewage system and the sewage system shall comply with the **Ontario Building Code, as amended from time to time**.

It is the responsibility of Bionest Technologies and/or its licensed agents to ensure that units meet all other applicable standards. Other standards may include those of the Canadian Standards Association, Ontario Ministry of Labour, Electrical Safety Authority, etc.

**Model BN-500**

This Bionest Treatment System is designed for **daily design sanitary sewage flow from 1600 L to 2000 L**. The system requires a standard two-compartment septic tank with a volumetric capacity of 4.7 m<sup>3</sup> or greater with an effluent filter on the outlet to screen out particles larger than 1.6 mm, overflowing to the Bionest bioreactor through a 100 mm diameter pipe.

The Bionest bioreactor is comprised of a tank with a volumetric capacity of 4.7 m<sup>3</sup> of similar configuration to that of the standard two-compartment septic tank. A specific quantity of Bionest synthetic media is placed into each of the two-compartments. The media is non-toxic polymer ribbon having a relative density of 1.04. Continuous aeration of the first compartment of the bioreactor is provided by a linear air pump and fine bubble air diffusers. A recirculation pump is installed in the last compartment of the bioreactor and part of the treated effluent is returned to the septic tank. The treated effluent is directed through a 100 mm diameter pipe to a dosing chamber.

The dosing chamber has a minimum effective volume of 0.75 of the daily design flow and is equipped with a minimum 0.3 HP pump, activated by a conventional on/off float or by a control panel. The dosing chamber is monitored by an alarm float installed in the chamber and is connected to an alarm panel placed inside the building on an independent electrical circuit. The effluent from the dosing tank is discharged to a shallow buried trench or other approved disposal methods.

This approval is only for the treatment unit component of the sewage system and the sewage system shall comply with the Ontario Building Code, as amended from time to time.

It is the responsibility of Bionest Technologies and/or its licensed agents to ensure that units meet all other applicable standards. Other standards may include those of the Canadian Standards Association, Ontario Ministry of Labour, Electrical Safety Authority, etc.

### **Model BN-600**

This Bionest Treatment System is designed for **daily design sanitary sewage flow from 2000 L to 2500 L**. The system requires a standard two-compartment septic tank with a volumetric capacity of 5.1 m<sup>3</sup> or greater with an effluent filter on the outlet to screen out particles larger than 1.6 mm, overflowing to the Bionest bioreactor through a 100 mm diameter pipe.

The Bionest bioreactor is comprised of a tank with a volumetric capacity of 5.1 m<sup>3</sup> of similar configuration to that of the standard two-compartment septic tank. A specific quantity of Bionest synthetic media is placed into each of the two compartments. The media is non-toxic polymer ribbon having a relative density of 1.04. Continuous aeration of the first compartment of the bioreactor is provided by a linear air pump and fine bubble air diffusers. A recirculation pump is installed in the last compartment of the bioreactor and part of the treated effluent is returned to the septic tank. The treated effluent is directed through a 100 mm diameter pipe to a dosing chamber.

The dosing chamber has a minimum effective volume of 0.75 of the daily design flow and is equipped with a minimum 0.3 HP pump, activated by a conventional on/off float or by a control panel. The dosing chamber is monitored by an alarm float installed in the chamber and is connected to an alarm panel placed inside the building on an independent electrical circuit. The effluent from the dosing tank is discharged to a shallow buried trench or other approved disposal methods.

This approval is only for the treatment unit component of the sewage system and the sewage system shall comply with the **Ontario Building Code, as amended from time to time**.

It is the responsibility of Bionest Technologies and/or its licensed agents to ensure that units meet all other applicable standards. Other standards may include those of the Canadian Standards Association, Ontario Ministry of Labour, Electrical Safety Authority, etc.

### **Model BN-750**

This Bionest Treatment System is designed for **daily design sanitary sewage flow from 2500 L to 3000 L**. The system requires a standard two-compartment septic tank with a volumetric capacity of 5.7 m<sup>3</sup> or greater with an effluent filter on the outlet to screen out particles larger than 1.6 mm, overflowing to the Bionest bioreactor through a 100 mm diameter pipe.

The Bionest bioreactor is comprised of a tank with a volumetric capacity of 5.7 m<sup>3</sup> of similar configuration to that of the standard two-compartment septic tank. A specific quantity of Bionest synthetic media is placed into each of the two-compartments. The media is non-toxic polymer ribbon having a relative density of 1.04. Continuous aeration of the first compartment of the bioreactor is provided by a linear air pump and fine bubble air diffusers. A recirculation pump is installed in the last compartment of the bioreactor and part of the treated effluent is returned to the septic tank. The treated effluent is directed through a 100 mm diameter pipe to a dosing chamber.

The dosing chamber has a minimum effective volume of 0.75 of the daily design flow and is equipped with a minimum 0.3 HP pump, activated by a conventional on/off float or by a control panel. The dosing chamber is monitored by an alarm float installed in the chamber and is connected to an alarm panel placed inside the building on an independent electrical circuit. The effluent from the dosing tank is discharged to a shallow buried trench or other approved disposal methods.

This approval is only for the treatment unit component of the sewage system and **the sewage system shall comply with the Ontario Building Code, as amended from time to time.**

It is the responsibility of Bionest Technologies and/or its licensed agents to ensure that units meet all other applicable standards. Other standards may include those of the Canadian Standards Association, Ontario Ministry of Labour, Electrical Safety Authority, etc.

### **Model BN-1000**

This Bionest Treatment System is designed for **daily design sanitary sewage flow from 3000 L to 4000 L**. The system requires a standard two-compartment septic tank with a volumetric capacity of 6.6 m<sup>3</sup> or greater with an effluent filter on the outlet to screen out particles larger than 1.6 mm, overflowing to the Bionest bioreactor through a 100 mm diameter pipe.

The Bionest bioreactor is comprised of a tank with a volumetric capacity of 6.6 m<sup>3</sup> of similar configuration to that of the standard two-compartment septic tank. A specific quantity of Bionest synthetic media is placed into each of the two-compartment. The media is non-toxic polymer ribbon having a relative density of 1.04. Continuous aeration of the first compartment of the bioreactor is provided by a linear air pump and fine bubble air diffusers. A recirculation pump is installed in the last compartment of the bioreactor and part of the treated effluent is returned to the septic tank. The treated effluent is directed through a 100 mm pipe to a dosing chamber.

The dosing chamber has a minimum effective volume of 0.75 of the daily design flow and is equipped with a minimum 0.5 HP pump, activated by a conventional on/off float or by a control panel. The dosing chamber is monitored by an alarm float installed in the chamber and is connected to an alarm panel placed inside the building on an independent electrical circuit. The effluent from the dosing tank is discharged to a shallow buried trench or other approved disposal methods.

This approval is only for the treatment unit component of the sewage system and **the sewage system shall comply with the Ontario Building Code, as amended from time to time**.

It is the responsibility of Bionest Technologies and/or its licensed agents to ensure that units meet all other applicable standards. Other standards may include those of the Canadian Standards Association, Ontario Ministry of Labour, Electrical Safety Authority, etc.

**Model BN-1250**

This Bionest Treatment System is designed for **daily design sanitary sewage flow from 4000 L to 5000 L**. The system requires a standard two-compartment septic tank with a volumetric capacity of 7.6 m<sup>3</sup> or greater with an effluent filter on the outlet to screen out particles larger than 1.6 mm, overflowing to the Bionest bioreactor through a 100 mm diameter pipe.

The Bionest bioreactor is comprised of a tank with a volumetric capacity of 7.6 m<sup>3</sup> of similar configuration to that of the standard two-compartment septic tank. A specific quantity of Bionest synthetic media is placed into each of the two-compartments. The media is non-toxic polymer ribbon having a relative density of 1.04. Continuous aeration of the first compartment of the bioreactor is provided by a linear air pump and fine bubble air diffusers. A recirculation pump is installed in the last compartment of the bioreactor and part of the treated effluent is returned to the septic tank. The treated effluent is directed through a 100 mm diameter pipe to a dosing chamber.

The dosing chamber has a minimum effective volume of 0.75 of the daily design flow and is equipped with a minimum 0.75 HP pump, activated by a conventional on/off float or by a control panel. The dosing chamber is monitored by an alarm float installed in the chamber and is connected to an alarm panel placed inside the building on an independent electrical circuit. The effluent from the dosing tank is discharged to a shallow buried trench or other approved disposal methods.

This approval is only for the treatment unit component of the sewage system and **the sewage system shall comply with the Ontario Building Code, as amended from time to time**.

It is the responsibility of Bionest Technologies and/or its licensed agents to ensure that units meet all other applicable standards. Other standards may include those of the Canadian Standards Association, Ontario Ministry of Labour, Electrical Safety Authority, etc.

### **Model BN-1500**

This Bionest Treatment System is designed for **daily design sanitary sewage flow from 5000 L to 6000 L**. The system requires a standard two-compartment septic tank with a volumetric capacity of 9.5 m<sup>3</sup> or greater with an effluent filter on the outlet to screen out particles larger than 1.6 mm, overflowing to the Bionest bioreactor through a 100 mm diameter pipe.

The Bionest bioreactor is comprised of a tank with a volumetric capacity of 9.5 m<sup>3</sup> of similar configuration to that of the standard two-compartment septic tank. A specific quantity of Bionest synthetic media is placed into each of the two-compartment. The media is non-toxic polymer ribbon having a relative density of 1.04. Continuous aeration of the first compartment of the bioreactor is provided by a linear air pump and fine bubble air diffusers. A recirculation pump is installed in the last compartment of the bioreactor and part of the treated effluent is returned to the septic tank. The treated effluent is directed through a 100 mm diameter pipe to a dosing chamber.

The dosing chamber has a minimum effective volume of 0.75 the daily design flow and is equipped with a minimum 1 HP pump, activated by a conventional on/off float or by a control panel. The dosing chamber is monitored by an alarm float installed in the chamber and is connected to an alarm panel placed inside the building on an independent electrical circuit. The effluent from the dosing tank is discharged to a shallow buried trench or other approved disposal methods.

This approval is only for the treatment unit component of the sewage system and **the sewage system shall comply with the Ontario Building Code, as amended from time to time.**

It is the responsibility of Bionest Technologies and/or its licensed agents to ensure that units meet all other applicable standards. Other standards may include those of the Canadian Standards Association, Ontario Ministry of Labour, Electrical Safety Authority, etc.

### Model BN-2000

This Bionest Treatment System is designed for **daily design sanitary sewage flow from 6000 L to 8000 L**. The system requires a standard two-compartment septic tank with a volumetric capacity of 11.4 m<sup>3</sup> or greater with an effluent filter on the outlet to screen out particles larger than 1.6 mm, overflowing to the Bionest bioreactor through a 100 mm diameter pipe.

The Bionest bioreactor is comprised of a tank with a volumetric capacity of 11.4 m<sup>3</sup> of similar configuration to that of the standard two-compartment septic tank. A specific quantity of Bionest synthetic media is placed into each of the two-compartment. The media is non-toxic polymer ribbon having a relative density of 1.04. Continuous aeration of the first compartment of the bioreactor is provided by a linear air pump and fine bubble air diffusers. A recirculation pump is installed in the last compartment of the bioreactor and part of the treated effluent is returned to the septic tank. The treated effluent is directed through a 100 mm diameter pipe to a dosing chamber.

The dosing chamber has a minimum effective volume of 0.75 of the daily design flow and is equipped with a minimum 1 HP pump, activated by a conventional on/off float or by a control panel. The dosing chamber is monitored by an alarm float installed in the chamber and is connected to an alarm panel placed inside the building on an independent electrical circuit. The effluent from the dosing tank is discharged to a shallow buried trench or other approved disposal methods.

This approval is only for the treatment unit component of the sewage system and **the sewage system shall comply with the Ontario Building Code, as amended from time to time.**

It is the responsibility of Bionest Technologies and/or its licensed agents to ensure that units meet all other applicable standards. Other standards may include those of the Canadian Standards Association, Ontario Ministry of Labour, Electrical Safety Authority, etc.



**Model BN-2650**

This Bionest Treatment System is designed for **daily design sanitary sewage flow from 8000 L to 10 000 L**. The system requires a standard septic tank with a volumetric capacity of 15 m<sup>3</sup> or greater with an effluent filter on the outlet to screen out particles larger than 1.6 mm, overflowing to the Bionest bioreactor through a 100 mm diameter pipe.

The Bionest bioreactor is comprised of a tank with a volumetric capacity of 15.1 m<sup>3</sup> of similar configuration to that of the standard two-compartment septic tank. A specific quantity of Bionest synthetic media is placed into each of the two-compartment. The media is non-toxic polymer ribbon having a relative density of 1.04. Continuous aeration of the first compartment of the bioreactor is provided by a linear air pump and fine bubble air diffusers. A recirculation pump is installed in the last compartment of the bioreactor and part of the treated effluent is returned to the septic tank. The treated effluent is directed through a 100 mm diameter pipe to a dosing chamber.

The dosing chamber has a minimum effective volume of 0.75 of the daily design flow and is equipped with a minimum 1 HP pump, activated by a conventional on/off float or by a control panel. The dosing chamber is monitored by an alarm float installed in the chamber and is connected to an alarm panel placed inside the building on an independent electrical circuit. The effluent from the dosing tank is discharged to a shallow buried trench or other approved disposal methods.

This approval is only for the treatment unit component of the sewage system and the sewage system shall comply with the **Ontario Building Code, as amended from time to time**.

It is the responsibility of Bionest Technologies and/or its licensed agents to ensure that units meet all other applicable standards. Other standards may include those of the Canadian Standards Association, Ontario Ministry of Labour, Electrical Safety Authority, etc.

### m<sub>1</sub> **Ecoflo Biofilter Treatment Systems Housed in a Concrete Shell**

#### Model Ecoflo ST-500B-PF Biofilter

This Ecoflo Biofilter Treatment Unit is designed for **daily design sanitary sewage flow of 850 L to 1500 L**. The system requires a standard septic tank complete with an effluent filter on the outlet to screen out particles larger than 1.6 mm, overflowing to a pump chamber.

The pump chamber has a minimum effective holding capacity of one times the daily design flow, equipped with a minimum 0.3 HP pump complete with level switches, alarm and control panel with a minimum 38 mm dia. discharge pipe, ball valve and a flow controller, terminating in an Ecoflo ST-650B Biofilter unit.

The Ecoflo® ST-650B Biofilter unit consists of approximately 4 m<sup>3</sup> of compact high-performance peat-based biofilter medium confined in a concrete shell.

The treated effluent is collected and stored in the collecting layer underneath the filtering media. The model has an effective integrated storage capacity that is equivalent to 0.9 times the daily design flow. The treated effluent is directed towards an integrated pump vault, equipped with a minimum 0.3 HP effluent pump, through a drainage system located at the bottom of the concrete shell. The pump is activated by a control panel for time dosing, and is equipped with an on/off float and alarm float installed in the chamber. The alarm float is connected to an alarm panel placed inside the building on an independent electrical circuit. The treated effluent is then dosed to a shallow buried trench system.

This approval is only for the treatment capability of the treatment unit. **The sewage system and its components shall comply with the Building Code, as amended from time to time.**

It is the responsibility of Premier Tech Environment and/or its licensed agents, to ensure that units meet all other applicable standards. Other standards may include those of the Canadian Standards Association, Ontario Ministry of Labour, Electrical Safety Authority, etc.



### Model Ecoflo ST-500B-GF Biofilter

This Ecoflo Biofilter Treatment Unit is designed for **daily design sanitary sewage flow of 850 L to 1500 L**. The system requires a standard septic tank complete with an effluent filter on the outlet to screen out particles larger than 1.6 mm, overflowing to the Ecoflo ST-650B Biofilter unit.

The effluent from the septic tank is fed by gravity over the peat media through a tipping-bucket and distribution plates.

The Ecoflo® ST-500B Biofilter unit consists of approximately 4 m<sup>3</sup> of compact high-performance peat-based biofilter medium confined in a concrete shell.

The treated effluent is collected and stored in the collecting layer underneath the filtering media. The model has an effective integrated storage capacity that is equivalent to 0.9 times the daily design flow. The treated effluent is directed towards an integrated pump vault, equipped with a minimum 0.3 HP effluent pump, through a drainage system located at the bottom of the concrete shell. The pump is activated by a control panel for time dosing, and is equipped with an on/off float and alarm float installed in the chamber. The alarm float is connected to an alarm panel placed inside the building on an independent electrical circuit. The treated effluent is then dosed to a shallow buried trench system.

This approval is only for the treatment capability of the treatment unit. **The sewage system and its components shall comply with the Building Code, as amended from time to time.**

It is the responsibility of Premier Tech Environment and/or its licensed agents, to ensure that units meet all other applicable standards. Other standards may include those of the Canadian Standards Association, Ontario Ministry of Labour, Electrical Safety Authority, etc.

### Model Ecoflo ST-650B-PF Biofilter

This Ecoflo Biofilter Treatment Unit is designed for **daily design sanitary sewage flow of 850 L to 2200 L**. The system requires a standard septic tank complete with an effluent filter on the outlet to screen out particles larger than 1.6 mm, overflowing to a pump chamber.

The pump chamber has a minimum effective holding capacity of one time the daily design flow, equipped with a minimum 0.3 HP pump, complete with level switches, alarm and control panel with a minimum 38 mm dia. discharge pipe, ball valve and a flow controller, terminating in an Ecoflo ST-650P Biofilter unit.

The Ecoflo® ST-650P Biofilter unit consists of approximately 5 m<sup>3</sup> of compact high performance peat based biofilter medium confined in a concrete shell.

The treated effluent is collected and stored in the collecting layer underneath the filtering media. The model has an effective integrated storage capacity that is equivalent to 0.9 times the daily design flow. The treated effluent is directed towards an integrated pump vault, equipped with a minimum 0.3 HP effluent pump, through a drainage system located at the bottom of the concrete shell. The pump is activated by a control panel for time dosing, and is equipped with an on/off float and alarm float installed in the chamber. The alarm float is connected to an alarm panel placed inside the building on an independent electrical circuit. The treated effluent is then dosed to a shallow buried trench system.

This approval is only for the treatment capability of the treatment unit. **The sewage system and its components shall comply with the Building Code, as amended from time to time.**

It is the responsibility of Premier Tech Environment and/or its licensed agents, to ensure that units meet all other applicable standards. Other standards may include those of the Canadian Standards Association, Ontario Ministry of Labour, Electrical Safety Authority, etc.

### **Model Ecoflo ST-650B-GF Biofilter**

This Ecoflo Biofilter Treatment Unit is designed for **daily design sanitary sewage flow of 850 L to 2200 L**. The system requires a standard septic tank complete with an effluent filter on the outlet to screen out particles larger than 1.6 mm, overflowing to the Ecoflo ST-650B Biofilter unit.

The effluent from the septic tank is fed by gravity over the peat media through a tipping-bucket and distribution plates.

The Ecoflo® ST-650B Biofilter unit consists of approximately 5 m<sup>3</sup> of compact high performance peat based biofilter medium confined in a concrete shell.

The treated effluent is collected and stored in the collecting layer underneath the filtering media. The model has an effective integrated storage capacity that is equivalent to 0.9 times the daily design flow. The treated effluent is directed towards an integrated pump vault, equipped with a minimum 0.3 HP effluent pump, through a drainage system located at the bottom of the concrete shell. The pump is activated by a control panel for time dosing, and is equipped with an on/off float and alarm float installed in the chamber. The alarm float is connected to an alarm panel placed inside the building on an independent electrical circuit. The treated effluent is then dosed to a shallow buried trench system.

**This approval is only for the treatment capability of the treatment unit. The sewage system and its components shall comply with the Building Code, as amended from time to time.**

It is the responsibility of Premier Tech Environment and/or its licensed agents, to ensure that units meet all other applicable standards. Other standards may include those of the Canadian Standards Association, Ontario Ministry of Labour, Electrical Safety Authority, etc.



**Supplementary Standard SB-6**

**Percolation Time and Soil Descriptions**

**August 15, 2006 update**

## **COMMENCEMENT**

Supplementary Standard SB-6 comes into force on the 31st day of December, 2006.

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## **SB-6 Percolation Time and Soil Descriptions**

### **ESTIMATION OF PERCOLATION TIME**

- (a) The purpose of this Section and the associated Tables and Charts is to provide assistance to those who must decide on the percolation time(s) to be used in design. Suggested relationships between percolation time, coefficient of permeability and soils of various types are given. **IT MUST BE EMPHASIZED THAT, PARTICULARLY FOR FINE GRAINED SOILS, THERE IS NO CONSISTENT RELATIONSHIP DUE TO THE MANY FACTORS INVOLVED.** The following guidance is presented for the soil types outlined in the Unified Soil Classification System (Table 1). In order to assess a particular soil.
  - (i) Table 2 and Table 3 - Approximate relationship of soil types to permeability and percolation time.
  - (ii) Charts 1 to 14 - Typical grain size distribution curves for soil types in the Unified Soil Classification System.
- (b) In Table 2 and Table 3, a range of values of "K" and of "T" are given for various soil descriptions. The principal modifiers which will influence selection of a "T" value within the range given are:
  - (i) The structure - "massive" fine-grained soils have high values of "T".
  - (ii) The density - For a given soil higher density produces a higher value of "T".
  - (iii) The percentage of clay - the higher the percentage the higher the value of "T".
  - (iv) The mineralogy of the clay portion - The more it "swells" the higher the value of "T".
  - (v) The plasticity of the soil - The higher the plasticity index the higher the value of "T".
  - (vi) Liquid Limit - the higher the liquid limit the higher the value of "T".
  - (vii) Organic content - The presence of fine organic particles, detectable by colouration and odour, can significantly reduce the permeability and raise the value of "T".

**Table 1**  
**Unified Soil Classification**

Coarse - Grained Soils		Fine - Grained Soils	
Group Symbols	Typical Names	Group Symbols	Typical Names
GW	Well-graded gravels, gravel-sand mixtures, little or no fines	ML	Inorganic silts and very fine sands, rock flour, silty or clayey fine sands or clayey silts with slight plasticity
GP	Poorly-graded gravels, gravel-sand mixtures, little or no fines	CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays
GM	Silty gravels, gravel-sand-silt mixtures	OL	Organic silts and organic silty clays of low plasticity
GC	Clayey gravels, gravel-sand-clay mixtures	MH	Inorganic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts
SW	Well-graded sands, gravelly sands, little or no fines	CH	Inorganic clays of high plasticity, fat clays
SP	Poorly-graded sands, gravelly sands, little or no fines	OH	Organic clays of medium to high plasticity, organic silts
SM	Silty sands, sand-silt mixtures		
SC	Clayey sands, sand-clay mixtures	PT (highly organic soils)	Peat and other highly organic soils
Col. 1	2	3	4

**Table 2**  
**Approximate Relationship of Coarse Grained Soil Types**  
**to Permeability and Percolation Time**

Soil Type (Unified Soil Classification)	Coefficient of Permeability, K - cm/sec	Percolation Time, T - mins/cm	Comment
Coarse Grained More than 50% Larger than #200			
G.W.- Well graded gravels, gravel-sand mixtures, little or no fines.	$10^{-1}$	<1	very permeable unacceptable
G.P.- Poorly graded gravels, gravel-sand mixtures, little or no fines.	$10^{-1}$	<1	very permeable unacceptable
G.M.- Silty gravels, gravel-sand-silt mixtures.	$10^{-1} - 10^{-4}$	4 - 12	Permeable to medium permeable depending on amount of silt.
G.C.- Clayey gravels, gravel-sand-clay mixtures.	$10^{-1} - 10^{-6}$	12 - 50	Important to estimate amount of silt and clay
S.W.- Well graded sands, gravelly sands little or no fines.	$10^{-1} - 10^{-4}$	2 - 12	medium permeability
S.P.- Poorly graded sands, gravelly sand, little or no fines.	$10^{-1} - 10^{-1}$	2 - 8	medium permeability
S.M.- Silty sands, sand-silt mixtures.	$10^{-1} - 10^{-5}$	8 - 20	medium to low permeability
S.C.- Clayey sands, sand-clay mixtures.	$10^{-1} - 10^{-6}$	12 - 50	medium to low permeability depending on amount of clay
Column 1	2	3	4

**Table 3**  
**Approximate Relationship of Fine Grained Soil Types**  
**to Permeability and Percolation Time**

Soil Type (Unified Soil Classification)	Coefficient of Permeability, K - cm/sec	Percolation Time, T - mins/cm	Comment
Fine Grained More than 50% Passing #200			
M.L.- Inorganic silts and very fine sands, rock flour, silty or clayey fine sands, clayey silts with slight plasticity	$10^{-5} - 10^{-6}$	20 - 50	medium to low permeability
C.L.- Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays	$10^{-6}$ and less	over 50	unacceptable
O.L.- Organic silts, organic silty clays of low plasticity; liquid limit less than 50	$10^{-5}$ and less	20 - over 50	acceptable depends on clay content
M.H.- Inorganic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts	$10^{-6}$ and less	over 50	unacceptable
C.H.- Inorganic clays of medium to high plasticity, organic silts	$10^{-7}$ and less	over 50	unacceptable
O.H.- Organic clays of medium to high plasticity organic silt; liquid limit over 50	$10^{-6}$ and less	over 50	unacceptable
Column 1	2	3	4

**SELECTION OF "T" TIME FROM THE ABOVE TABULATION**

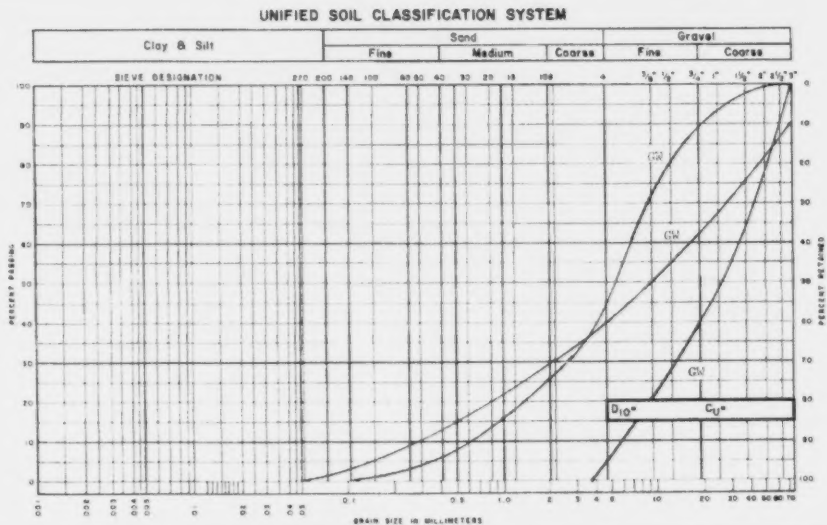
A range of "T" times for each soil type is shown above. Select from within this range by determining if the soil is within the low, middle or high part of the range considering the soil identifiers and soil characteristics.

Consider structure, density, colour, prevalence of organics, the clay content and mineralogy, the plasticity index and liquid limit and the functioning of existing systems in similar soils in the area.

**Notes:**

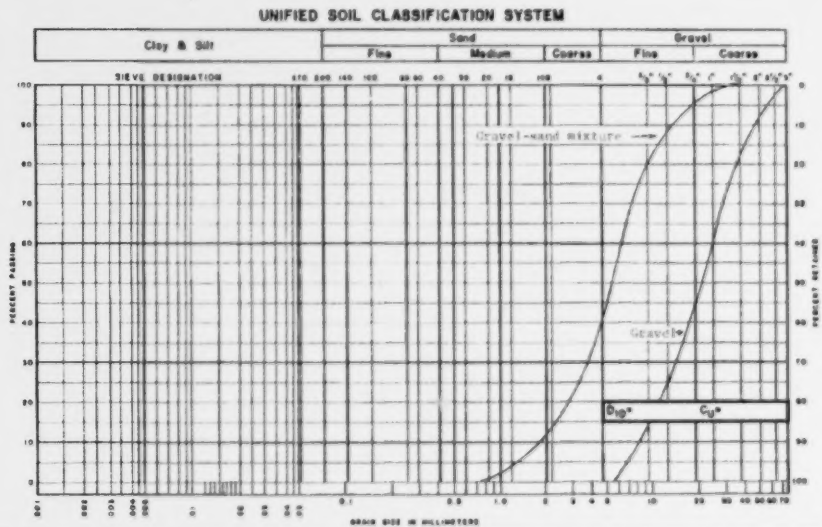
The following Ministry of the Environment Reports provide further information on the relationship between grain size, coefficient of permeability and percolation time.

1. "Study on the Feasibility of Correlating Percolation Time with Laboratory Permeability" - 1975 - Research Report No. S56 by H. T. Chan, PhD., P.Eng.
2. "Study of Conventional Tile Fields in Fine-Grained Soils" - 1979 Research Report 74 by H. T. Chan, PhD., P.Eng.



**Chart 1 - GW**

- Well-graded gravels, gravel-sand mixtures
- Less than 5% finer than 0.075 mm
- Uniformity coefficient  $> 4$



**Chart 2 - GP**

- Poorly-graded gravels, gravel-sand mixtures
- Less than 5% finer than 0.074 mm
- Uniformity coefficient less than 4

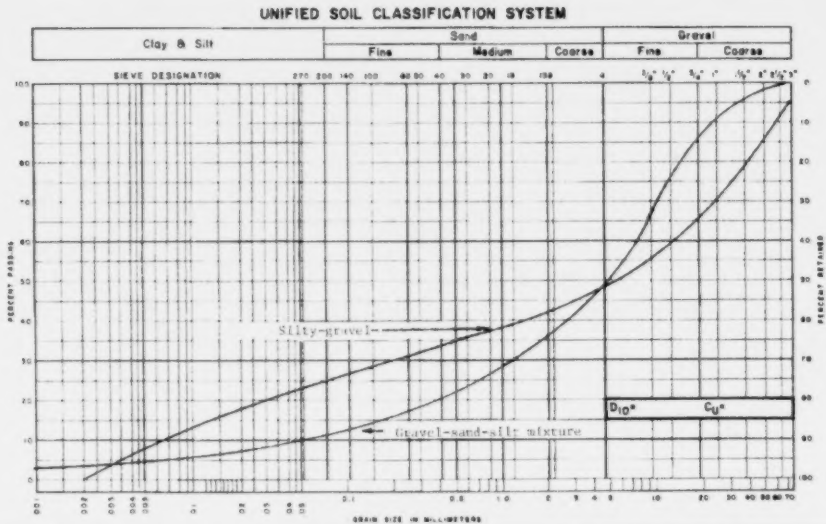
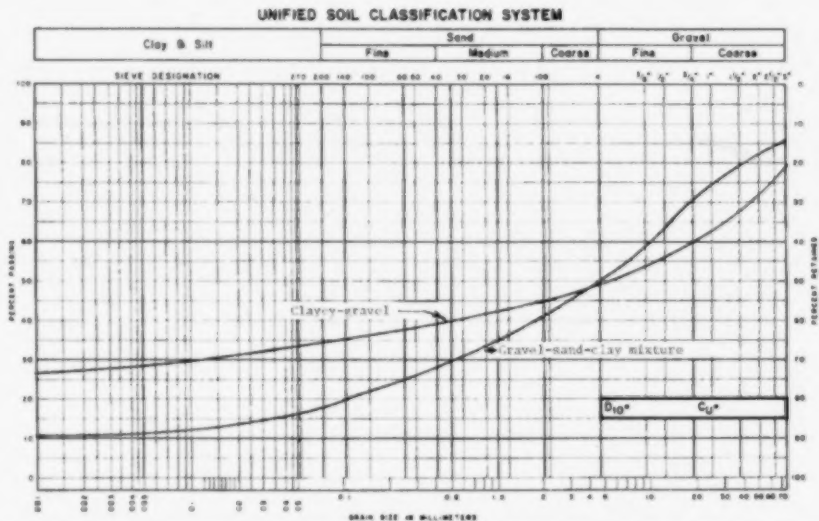


Chart 3 - GM

- Silty-gravels, gravel-sand-silt mixtures
- More than 12% finer than 0.074 mm
- Non-plastic - plasticity index less than 4
- Plots below "A" line on plasticity chart





- Chart 4 - GC**
- Clayey-gravels, gravel-sand-clay mixtures
  - More than 12% finer than 0.074 mm
  - Plasticity index greater than 7
  - Plots above "A" line on plasticity charts

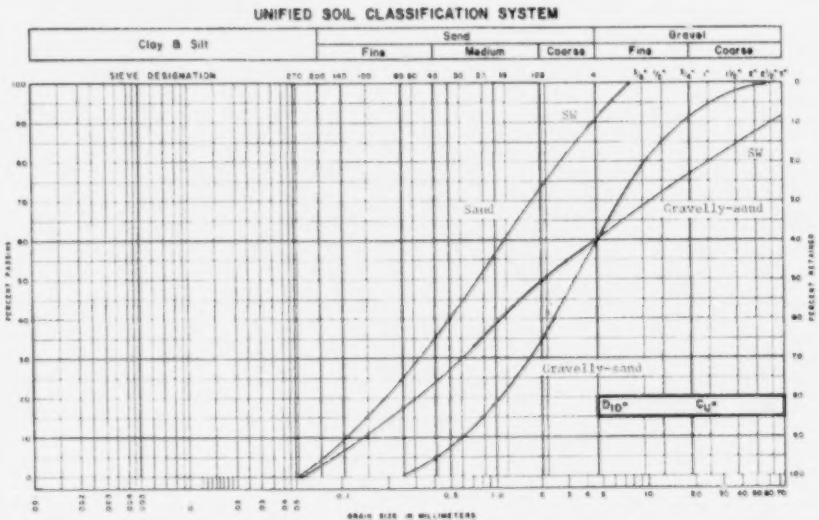


Chart 5 - SW

- Well-graded sands, gravelly-sands
- Little or no fines (< 5% passing 0.074 mm)
- Uniformity coefficient > 4

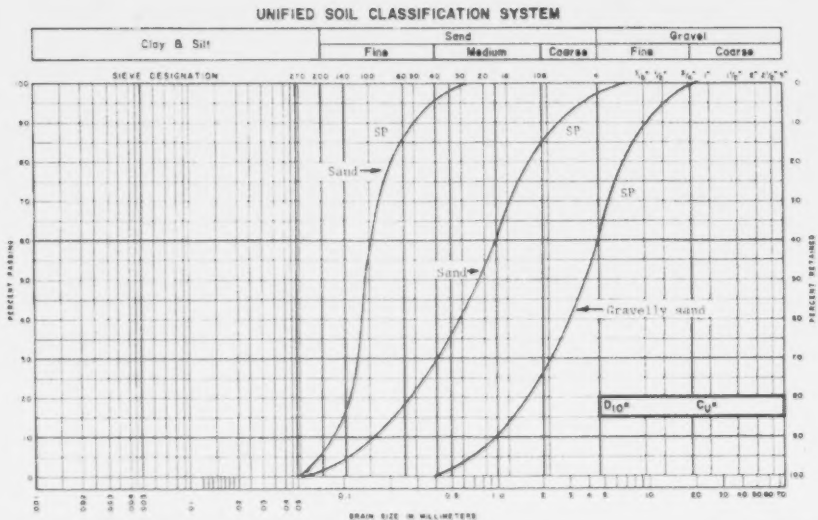


Chart 6 - SP

- Poorly-graded sands & gravelly-sands
- Little or no fines (< 5% passing 0.074 mm)
- Uniformity coefficient < 6

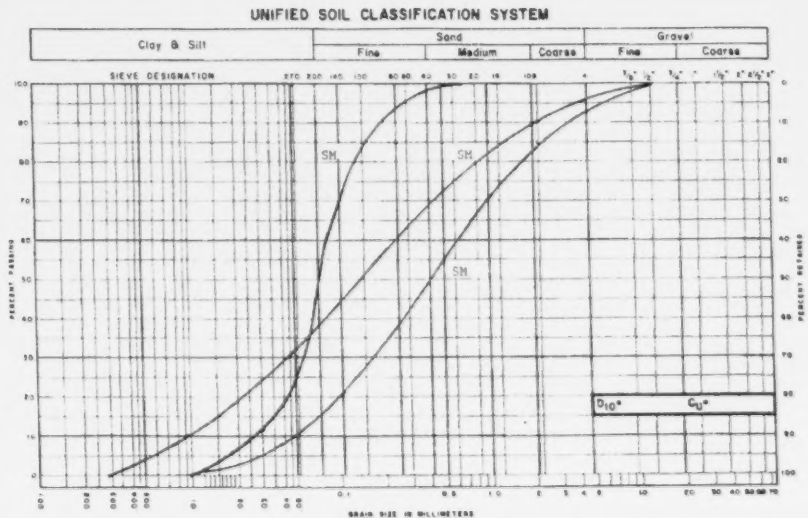


Chart 7 - SM

- Silty sands, sand-silt mixtures
- More than 12% finer than 0.074 mm
- Plasticity Index ( $I_p$ ) less than 4
- Plots below "A" line on plasticity chart



## UNIFIED SOIL CLASSIFICATION SYSTEM

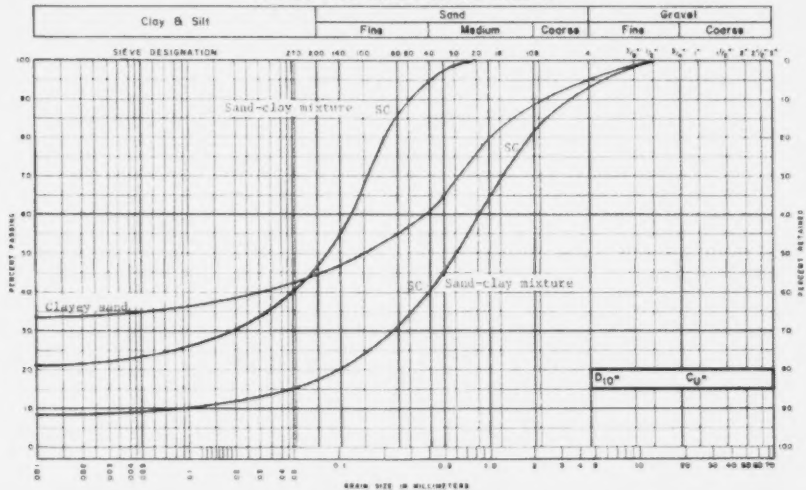
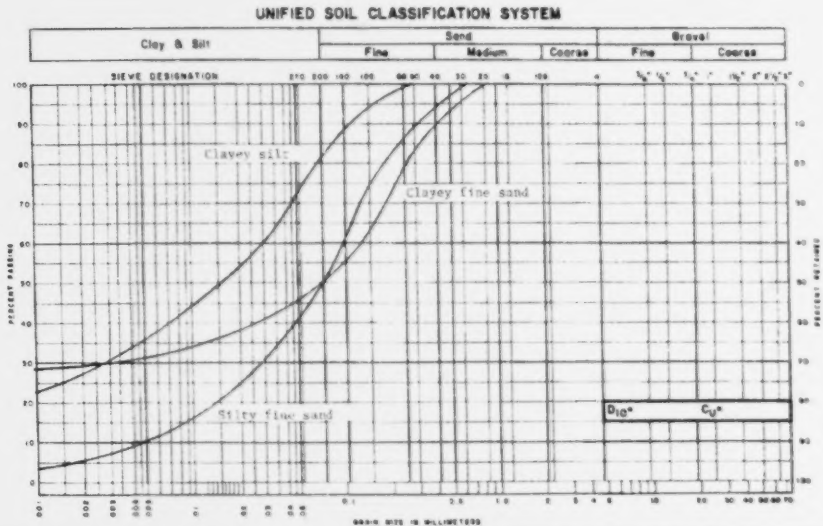


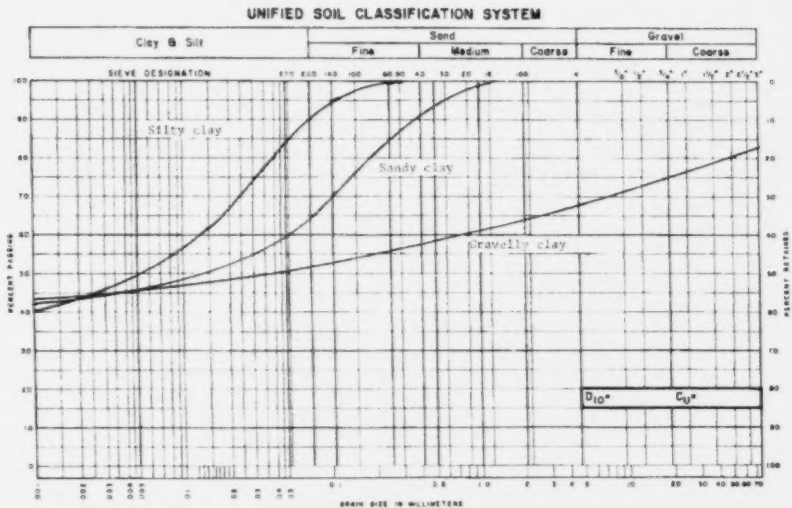
Chart 8 - SC

- Clayey sands, sand-clay mixtures
- More than 12% finer than 0.075 mm
- Plasticity index greater than 7
- Plots above "A" line on plasticity chart

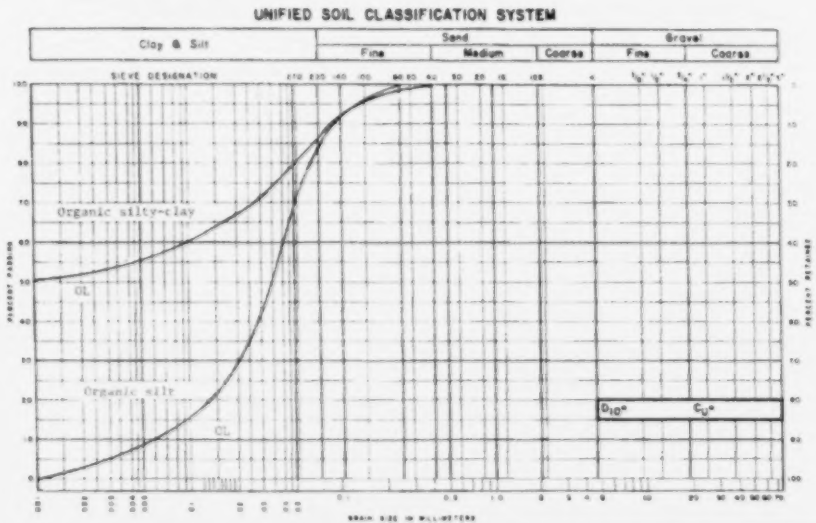


**Chart 9 - ML**

- Inorganic silts and very fine sands, rock floor, silty or clayey fine sands or clayey silts with slight plasticity  $W_L$  less than 50



**Chart 10 - CL**  
 - Inorganic clays of low to medium  
 plasticity, gravelly clays, sandy clays  
 silty clays, lean clays  
 $W_L$  less than 50



**Chart 11 - OL**  
 - Organic silts, organic silty-clays of  
 low plasticity  
 Liquid limit  $W_L$  less than 50



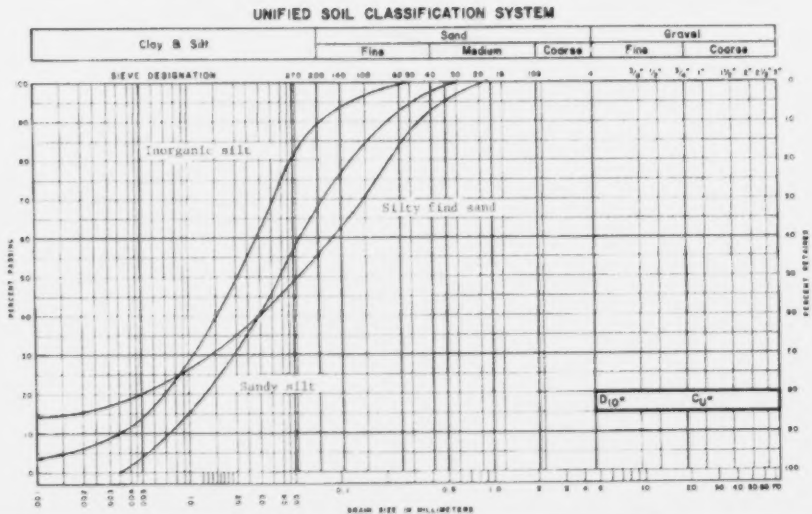


Chart 12 - MH  
- Inorganic silts, micaceous or  
diatomaceous fine sandy or silty  
soils, elastic silts  
Liquid limit over 50



## **Supplementary Standard SC-1**

### **Code of Conduct for Registered Code Agencies**

**August 15, 2006**

## **COMMENCEMENT**

Supplementary Standard SC-1 comes into force on the 31st day of December, 2006.

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## **SC-1 Code of Conduct for Registered Code Agencies**

### **1. Standards**

A registered code agency shall at all times undertake its responsibilities in a professional manner, and in conformance with the provisions of the Building Code Act, 1992, the building code, and all applicable legislation.

Building code provisions which contain requirements pertaining to the conduct of a registered code agency, include:

<b>Division C</b>	<b>Requirements</b>
Sentence 3.4.3.9.(2)	Suspension, Revocation, Refusal to Register or Renew a Registration
Subsection 3.7.2.	When a Registered Code Agency may not be Appointed or Continue to Act under an Appointment
Sentence 3.7.4.1.(1)	Manner in which a Registered Code Agency shall Perform Functions
Article 3.7.4.3.	Issuance of Certificates by Registered Code Agencies
Article 3.7.4.4.	Issuance of Orders by Registered Code Agencies
Article 3.7.4.5.	Authorized Persons
Article 3.7.4.6.	Prohibition
Article 3.7.4.7.	Information and Records
Sentence 3.7.6.2.(1)	Information to be Provided by a Registered Code Agency to the Director
Article 3.7.6.3.	Information to be Provided by a Registered Code Agency to the Chief Building Official
Subsection 3.7.7.	Referral of Stop Work Order
Column 1	2

**2. Application**

A registered code agency shall ensure that its officers, directors, employees and other persons engaged to perform functions on behalf of the registered code agency, perform their functions in a manner consistent with the code of conduct.

**3. Respect**

A registered code agency, while carrying out its functions under an appointment, shall treat persons applying for or holding permits under section 8 of the Building Code Act, as well as persons responsible for design activities, persons engaged in construction, and other persons with whom a registered code agency may come into contact in the course of carrying out its responsibilities, with respect, by being courteous at all times and in all situations.

## Index<sup>(1)</sup>

- (1) Items contained in the Index are referenced to the numbering system used in this Code and Guide for Sewage Systems instead of to page numbers. For more information on the numbering system, refer to the "Preface" at the front of the document.

### A

- Absorption trench
  - construction, 8.7.3.
- Access openings, 8.2.2.2.(4)
- Alarm, 8.6.2.2.(3), 8.8.2.1.(1)
- Anchorage of tank, 8.2.2.2.(6)
- Application of
  - class 1, 8.3.1.2.
  - class 2, 8.4.1.2.
  - class 3, 8.5.1.2.
  - class 4, 8.6.1.1.
  - class 5, 8.8.1.1.
  - sewage system, 8.1.2.1.
  - soil, 8.2.1.2.

### B

- Backfill of
  - distribution pipe, 8.7.3.3.
  - trenches, 8.7.3.2.

### C

- Capacity of
  - class 2, 8.4.2.2.
  - class 3, 8.5.1.2.
  - filter bed, 8.7.5.1.
  - holding tanks, 8.2.2.4., 8.8.2.2.
  - septic tanks, 8.2.2.3.
- Clearance on site, 8.2.1.4., 8.7.4.2.(9)
- Construction requirements
  - class 1, 8.3.2.1.
  - class 2, 8.4.2.1.
  - class 3, 8.5.2.1.
  - class 4, 8.7.2.1.
  - class 5, 8.8.2.1.
  - shallow buried trenches, 8.7.6.2.

### D

- Daily design sanitary sewage flow
  - other than residential use, 8.2.1.3.(2)
  - residential use, 8.2.1.3.(1)
- Definitions, 1.4.1.2. of Div. A, 8.1.1.2.
- Design standard for
  - soil classification, 8.2.1.2.(2)
  - tank, 8.2.2.2.
- Discharge limitation for
  - industrial process waste, 8.1.3.1.(3)
  - kitchen waste, 8.1.3.1.(4)
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  - water softener, 8.1.3.1.(5)
- Distribution pipe
  - clearance, 8.2.1.6.(2)
  - construction, 8.7.3.3.
  - dosing, 8.6.1.3.
  - length, 8.7.3.1.

### E

- Effluent filter, 8.6.2.1.
- Effluent quality of treatment units, 8.6.2.2., 8.7.6.2.(1)

### F

- Fill based absorption trench, 8.7.4.
- Filter bed, 8.7.5.

### G

- Greywater system
  - clearance, 8.2.1.5.
  - construction requirements, 8.4.2.1.

### H

- Holding tank
  - clearance, 8.2.1.6.(3)
  - construction requirements, 8.8.2.1.

**I****Interceptor**

- drain down time, 8.1.3.1.(7)
- maintenance, 8.9.3.3.

**L****Loading rate**

- fill based absorption trench, 8.7.4.1.
- filter bed, 8.7.5.2.

**M****Maintenance and operation, 8.9.****N****Notices and inspections,  
1.3.5. of Div. A****O****Opening in compartments of  
septic tanks, 8.2.2.3.****Operation of sewage systems, 8.9.2.****P****Percolation test location, 8.2.1.2.(3)****Percolation time of soil**

- leaching bed fill, 8.7.2.1.
- surrounding pits, 8.4.2.1.(7)

**Q****Qualification, 3.3.3. of Div. C****Quality of effluent, 8.6.2.2., 8.7.6.2.(1)****R****Raised or mounting on site for**

- class 1, 8.3.3.1., 8.3.4.1.
- class 2, 8.4.2.1.(5)
- class 3, 8.5.2.1.(6)
- class 4, 8.7.2.1.(4)

**S****Site**

- evaluation, 8.2.1.2.
- documents, 1.3.2. of Div. A

**T****Treatment units, 8.6.2., 8.7.6.2.**

- cleaning, 8.9.3.4.
- documentation, 8.6.2.2.(6)

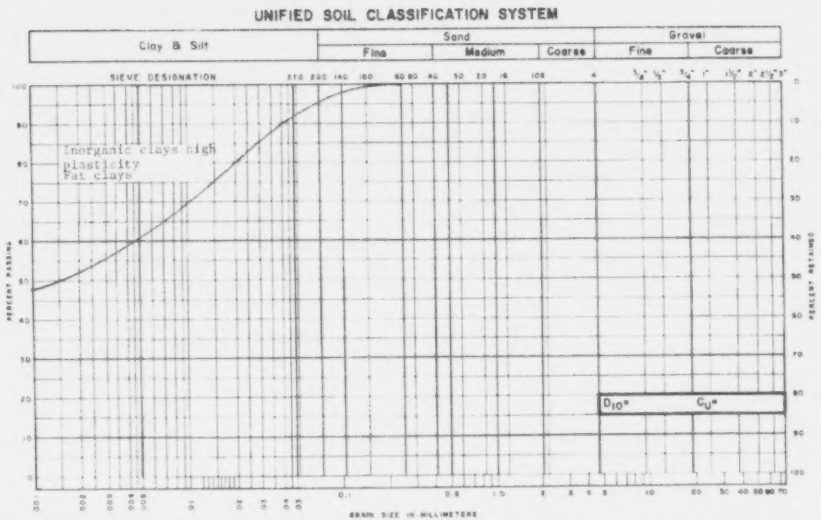
**V****Venting**

- between compartments, 8.2.2.3.
- class 1, 8.3.2.1.
- class 5, 8.8.2.1.









**Chart 13 - CH**  
**- Inorganic clays of high plasticity - fat clays**  
**Liquid limit over 50**

